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ABSTRACT

This book is the first and largest volume of a three-part work that constitutes the proceedings of the 1966 International Reading Association conference. The papers in this book represent broad viewpoints of reading at all instructional levels and are presented in the following sections: the presidential address and other major addresses, ten "sequences" on different facets of reading, general and professional concerns discussed in "sessions," and papers presented at cosponsored meetings. The following topics are discussed: reading development, literature as part of the reading program, reading materials, curriculum planning, class organization, reading programs, counseling and guidance in reading, corrective teaching in the classroom, problems in reading instruction, teacher education, using linguistics in reading instruction, environmental influences, individualized instruction, reading research, research design, and evaluation in reading. (RL)

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VISTAS IN READING

J. ALLEN FIGUREL, *Editor*

Eastern Michigan University

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VOLUME 11, PART 1

PROCEEDINGS OF THE ELEVENTH ANNUAL CONVENTION

INTERNATIONAL READING ASSOCIATION

CS 003 725

THE INTERNATIONAL READING ASSOCIATION came into being January 1, 1956, through the merger of the International Council for the Improvement of Reading Instruction and the National Association for Remedial Teaching. It is a professional organization for individuals and groups who are genuinely concerned with the improvement of reading programs—both developmental and remedial, for children and adults—and with providing adequate guidance in all situations in which reading serves as a vital aid to learning.

The Association publishes three professional journals. Two membership journals, *The Reading Teacher* and the *Journal of Reading*, are published eight times a year—October through May. *The Reading Teacher* is a publication devoted to all aspects of reading at the elementary school level. The *Journal of Reading* is concerned with the improvement of reading programs in high schools and at the college and adult levels. Published for the first time in Fall, 1965, the *Reading Research Quarterly* is issued each year in fall, winter, spring, and summer and is a scholarly journal concerned with experimental research and theoretical speculation in reading and related areas.

Membership is open to all persons engaged in the teaching or supervision of reading at any school level, to parents, and to other persons interested in the purposes of the Association. Members and council affiliates represent all fifty of the United States and many nations, such as Australia, Canada, England, Germany, New Zealand, Nigeria, Japan, Denmark and others. For complete information about membership in the Association and subscriptions to IRA journals write to Dr. Ralph C. Staiger, Executive Secretary-Treasurer, International Reading Association, P. O. Box 695, Newark, Delaware 19711.

Volume 11 of the Proceedings of the 1966 Convention was published in three separate parts as follows:

Part 1. *Vistas in Reading*, J. Allen Figurel, Editor

Part 2. *Combining Research Results and Good Practice*, Mildred A. Dawson, Editor

Part 3. *The Individualized Reading Program: A Guide for Classroom Teaching*, Lyman C. Hunt, Jr., Editor

All parts of Volume 11, as well as a limited number of the back issues of the Proceedings, are available from the publisher, International Reading Association, Inc., P. O. Box 695, Newark, Delaware 19711. The early volumes, 1 through 8, of the Proceedings were published in cooperation with Scholastic Book Services.

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FOREWORD

YOU ARE PLAYING NOTES. Don't play notes. Make music. This statement by Pablo Casals, it seems to me, can be applied to our concerns about the teaching of reading. Invariably, most teachers agree as to the meaning and ultimate goal of all reading, *i.e.* the "music" of reading. However, it is a well-known fact that we spend far too much time on the "notes" of reading and how they should be taught. Much disagreement exists in this area of methodology. The result has been the publication of an enormous amount of professional material on the subject. There is a constant need of evaluating it from a critical point of view. In addition to presenting many general aspects of reading this volume presents many critical analyses of variant points of view. They point to the need for teachers to take an eclectic approach to the teaching of reading to children who are themselves unique, very different and learn by different methods.

VISTAS IN READING is the first and largest of the three parts of volume 11 of the Proceedings of the 1966 Convention published by IRA. Volume 11 contains the papers presented by national and international leaders at the Dallas Convention, May 4-7, 1966. Two other publications in Volume 11 are: PART 2. COMBINING RESEARCH RESULTS AND GOOD PRACTICE *and* PART 3. THE INDIVIDUALIZED READING PROGRAM: A GUIDE TO CLASSROOM TEACHING. The papers here presented represent broad viewpoints on the teaching of reading at all levels of instruction. Much material is presented in this volume and in most cases the manuscripts have not been abbreviated. In reading the publication, the teacher can be as selective as he wants to be, and he may concentrate on a particular facet of reading instruction if he so desires. The first section of VISTAS IN READING contains the presidential and other major addresses; ten "Sequences" on different facets of reading follow for reading in depth; general and professional concerns are covered by the section on "Sessions"; and the last section includes papers presented in the co-sponsored meetings.

Dallas was a pleasant place in May. Good weather coupled with the warm hearts of our Texas friends made the four-day stay a most enjoyable one. Over 6,600 persons were in attendance, making the Dallas Convention one of the largest ever held by IRA. The program provided an array of choices. Special efforts were made to provide opportunity for divergent ideas to be presented and critically evaluated. Both the "Sequences" and the "Sessions" provided exploration in depth. The officers of the Association, the Program Committee, and the local committees had done their job well. The result was a pleasant and effective convention for everyone. Dallas was truly a benign host, as were the universities and schools of the area. Our sincere and warm thanks go to them.

Neither this foreword nor the papers presented in this publication can transmit to you the spirit and enthusiasm of so many reading people meeting together in so friendly an atmosphere. However, the report will give you the substance of the many vital subjects presented and discussed and if it does this in small measure, it will have served its purpose.

J. ALLEN FIGUREL
Editor

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FEATURED ADDRESSES

1. Presidential Address: Vistas in Reading

DOROTHY KENDALL BRACKEN
Southern Methodist University

HAVING CHOSEN "Vistas in Reading" as the theme of the Eleventh Annual Convention of the International Reading Association, I would direct your attention to *several* reading vistas, or views, related to the reading field, some of which, if photographed, might necessitate the use of a wide-angle lens, or a normal 50 mm. lens, or even a telephoto attachment.

First, let us consider the wide-angle view—contrasting two widely separated levels of reading: the adult and the primary. In America, both educators and laymen tend to think of our society as one which is populated with mature readers. We point with pride to the number of books, magazines, and newspapers published each year; the accessibility of all types of printed matter; the growth of libraries and the records of library withdrawals, etc. Statistics on literacy have led us to think of the members of our society as "well-read," as informed adults. Yet, an editorial, which appeared last February in the *Dallas Morning News*, entitled "Shocking Survey" revealed an appalling lack of information on the part of some adult Americans—a report which is, in a way, a commentary on adult reading in America.

The editorial read: "Can you believe that nearly 50,000,000 Americans are totally unaware of the fact that there is a war going on in Viet Nam? If the results of a poll conducted for the Council on Foreign Relations by the Survey Research Center of the University of Michigan are accurate, that is the case.

It perhaps would be understandable if so many were confused by the Southeast Asian conflict and failed to have an opinion on what role the U. S. is playing. But to be unaware of the conflict is incredible.

Such ignorance was excelled only by the apathy of those who said they were aware of these facts."[1]

You and I, as educators particularly concerned with the improvement of reading at *all* levels, see this editorial as an incentive to increase our efforts in the realm of adult literacy. It also reminds us of the results of a former study reported by Gray and Rogers entitled "Maturity in Reading," which "revealed that the reading performance of our adult population ranges all the way from gross immaturity to a very high level of achievement but that the number of highly mature readers is small."[2]

In *complete* contrast, from the serious to the humorous, let us consider the opposite of the adult level, the beginning stage. If a third grader's composition labeled "A Biography of Bach" is any indication, we must still encourage improvement in the language arts area at the eight-year-old level. A third grade teacher in San Francisco received from a musically-minded pupil this brief composition:

> Johann S. Bach's grand-daddy was a musician. Bach's daddy was a musician. Bach wasn't very bright, so he was a musician too. He invented the clavichord, which is hard to play. He invented the fugue, which is harder to play. He had 17 children. Then he married his cousin and went blind. He is dead![3]

The wide-angle view not only depicts the range of problems from a reading level point of view, as briefly (and, in the latter case, amusingly) illustrated above, but it could include all the ways of studying the reading process as reported during this century, as represented by Guy Buswell's *Silent Reading: A Study of its Various Types*, 1922, to Holmes and Singer "Factor Analyses" in the *Invitational Addresses* of the IRA Detroit Convention, 1965, and Nila Banton Smith's *American Reading In-*

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[1] "Shocking Survey." An editorial. *The Dallas Morning News*. Sunday, February 7, 1965.

[2] William Scott Gray, and Bernice Rogers. *Maturity in Reading; Its Nature and Appraisal*. Chicago: University of Chicago Press, 1956.

[3] Service Bulletin. Boston: Allyn and Bacon, Inc.

struction, an expertly described historical survey of movements and trends in the reading field. Also, the wide-angle view could easily encompass the teaching of reading in *all* countries throughout the world. The activities of IRA itself might be included in this broad view. During the summer of 1966 alone, because of the IRA sponsored European tours, one hundred and forty-six American members of our organization will be engaged in thirty meetings with educators in foreign lands, including the twelve meetings planned for the First International Congress on Reading in Paris on August 8-9.

If we change the frame of our picture by shifting from the wide-angle lens to the standard 50 mm. lens, we catch the rare excitement of the educational scene of 1966. Surrounded on every hand with new and novel ways of instructing youngsters, equipping classrooms, and conducting research, present-day innovations open vistas undreamed of when our organization was formed. In the area of research alone, Edward Summers tells us that we may soon be able to say, "Give us a list of all the research studies concerning vocabulary (or any other particular subject), and in a matter of minutes we may have such a list." Furthermore, not too long hence, it may be possible for us not only to receive a list of research studies, but also in a matter of minutes, to have the printed studies themselves.

Excitement over mechanization is justified in the area of automated instruction, when a computer can be used to select and sequence instructional material for a pupil, store data as he progresses, and then provide him with an immediate progress evaluation. Highly desirable, of course, is the consideration of the *proper place* of mechanization in the total-school reading program. If we are to meet the reading needs of pupils and students who must come to grips with the knowledge and publication explosion, we must use all the mechanical devices available to us, *especially those which improve diagnosis, build readiness, and supply enrichment.*

But Edgar Dale reminds us that "Knowing about is not the same thing as knowing." So it is well that while we recognize the value of the machine, we acknowledge the limitations of its use. For instance, it is highly possible that an instrument may not always be able to substitute for actual experience, to teach well all the types of communication and all effective ways of speaking, to manipulate ideas in complicated ways or cope with criticism, or interpret literature; it may not be capable of motivating or inspiring. Each of these items is an extremely significant facet of the educational process.

As interesting as the views are through the wide-angle and standard lens, it is the telephoto view which brings into perspective the items to which I would call your special attention. Let us focus through the view finder on one of the basic problems confronting educators in the reading field—that of increasing our knowledge of the learner, the individual reader himself.

Ruth Strang reminds us that ". . . it is important to look deeply into the basic aspects of our program—the learning process which underlies the reading process, which in turn gives direction to our teaching procedures. For we do not really know how to teach until we know more about how pupils learn.

"Reading is a process by which the mind through symbols transforms experience into meaning. It is essential that the process be meaningful. Otherwise the child goes through the motion of reading without benefiting from knowledge, enjoyment or new modes of thinking and acting.

"The reading process is what goes on between intake and output, between seeing printed words and thinking or doing something in response to them."[4]

And immediately the individual as a learner fills the frame of the telephoto view finder. The true strength of all instruction rests upon the teacher's continuous sensitivity toward and perceptive observation of the pupil as he grapples with learning problems. How a teacher guides the learner is dictated by the pupil's uniqueness, his responses, his likenesses and differences to other learners.

The classroom teacher deals with the individual, but he must also deal with individual differences. Perhaps his attitude toward these differences is broadened as a result of considering one of the finest definitions of individual differences anywhere—the one in the Newbery prize book, *Dobry*. Grandfather is talking to Roda, his daughter, who is Dobry's Mother. Roda is worried over the fact that Dobry is more interested in modeling and painting than he is in the work on the farm. Grandfather said: "But, Roda, people are not all the same anymore than the vegetables, fruits, trees, and animals are all the same. A fox lives one way; the buck another way. Both have different needs. A pine tree will die where a poplar tree will grow. Grapes need sun; celery needs shade and more water. Some plants need to be moved; other plants die if you move them. There it is, Roda. What seems an easier life to you would seem a harder one for Dobry. 'He needs to draw, to paint, and Dobry is going to be a great man just as his father said he would be.'"[5]

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[4] Ruth Strang. From correspondence.

Handling large groups of learners, no matter what the educational level, has always been one, if not the major, problem of the teacher. This is particularly true of the reading teacher. For many years, teachers have concentrated on meeting individual differences based on the rate of learning and the resultant wide range of reading levels represented in every class, and rightly so. They have also been concerned with readers who apparently function at the same reading level as measured by a standardized test, but whose skill needs are far from identical.

To think that meeting the reading level and skill needs of pupils is caring for individual differences is to assume a naive attitude toward learner differences. A host of other considerations cries out for attention, a few of which are variations in capacity, environment, physical condition, neurological involvement, emotional stamina, the desire to learn, etc. So complex are these related areas that as teachers we are too often discouraged by the complications involved. If remedial teachers and clinicians are excepted, perhaps primary teachers effect more concern for the complex areas related to various learner responses than do other teachers. However, another group of teachers should be allied with the primary teachers in this connection—the teachers of doctoral candidates. Thus, those who work at the extremes of grade levels appear to be *happiest* about individual differences.

Still the differences in rate of learning —skills, needs, capacity, emotion, vision, eye movement patterns, environment, etc. —are by no means all inclusive. People of all ages vary greatly in their response *to certain methods* of teaching. For example, thousands of young children learn to read by the sight method; some even learn when an isolated phonic or alphabet method is used; others require the kinesthetic approach; most children seem to progress best when a combination of methods is employed. The question, then, is not "By which method is reading taught best?" but rather "By which method does *this individual* learn best?"

Perhaps it would be well if we re-read Anderson and Dearborn, who delineated the reading process in terms of pupils and methods several years ago in a definitive volume entitled *The Psychology of Reading*, and Miles Tinker's new book, *Bases for Effective Reading*, which carefully summarizes the research on this topic.

Many very different considerations of individual differences (for example, the variation in *need for rapport*) have not received much attention in the past. Not only the *need* for more harmonious relation between teacher and pupil, but also the various ways in which learners respond to multiple techniques a teacher uses to establish rapport between herself and her pupil, merit our attention. One student may require a minimum of communication between himself and the teacher, perhaps because he is highly motivated, has no learning problems, and adjusts extremely well to social situations. On the other hand, another pupil may require a great deal from the teacher in the way of careful planning in order for the teacher to achieve the proper teacher-pupil relationship which will promote effective learning. Building effective rapport between a teacher and a classroom of learners is as important a part of dealing with individual differences as is recognizing variations in rate of learning or skill needs, the two latter items being the ones to which we have directed most of our attention in the past.

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[5] Monica Shannon. *Dobry*. New York: Viking Press, 1934.

Although there are many other ways in which learners differ, I would mention only one other, and that is the way in which readers' interests vary along with their responses to different kinds of literature. One youngster will like Carl Sandburg's poem, "Arithmetic."

Arithmetic is where numbers fly like

material
deleted due
to copyright
restrictions

mother?[6]

Another child will like "What is Purple?"

Time is purple

material
deleted
due to
copyright
restrictions

In the spring.[7]

In summary then, as reading teachers we must use all the books, machines, aids, and devices which are available in order to teach effective reading skills, but it is crucial that we continue our study of the individual learner. Our aim, of course, is to produce readers who, according to their capacities, read without mechanical difficulty, read with complete comprehension and interpretation, read and think critically, read to react.

DeBoer has said that "effective reading' is the mind reaching out for meaning." Certainly the mind must reach out in order to comprehend the ideas expressed in these paragraphs in Richard Carrington's *The Story of Our Earth:*

> Let us imagine that, by some magic, the whole of earth's history could be compressed into a single year. On this scale, the first eight months would be completely without life. The following two would be devoted to the most primitive of creatures. No mammals would appear until the second week in December.
> Man, as we know him, would strut onto the stage at approximately 11:45 p.m. on December 31. The age of written history would occupy little more than the last 60 seconds on the clock![8]

To balance "the mind reaching out" we must produce effective readers whose *hearts* reach out. For the heart can aid in molding the mind from inspirational contact with literature, for example, in books like Marguerite DeAngeli's *Door in the Wall.* Do you remember the story of this Newbery Prize Book? Roger, a teenager of the Middle Ages, having been stricken with the plague, is not only paralyzed but utterly despondent. In counseling with Roger, Brother Luke describes the Monastery to which he will take the boy and at the same time he gives him in one sentence a philosophy by which to live—a sentence which has inspired hundreds of adults as well as children. For Brother Luke suggests that Roger approach his life problems in the same way as they will approach the Monastery. He says, "Thou has only to follow the wall far enough and there will be a door in it."[9]

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[6] Carl Sandburg, "Arithmetic." In *Imagination's Other Place.* Helen Plotz. New York: Thomas Y. Crowell, 1955.

[7] Mary O'Neal. *Hailstones and Halibut Bones.* New York: Doubleday & Co., 1961.

[8] Richard Carrington. *The Story of Our Earth.* New York: Harper Publishing Co., 1955.

Thus, the wide-angle, standard, and telephoto lenses of our camera have brought the broad view, the present day scene, and some basic problems of the reading field into sharp focus through "Vistas in Reading."

2. The Year Ahead in IRA

MILDRED A. DAWSON
Sacramento State College

WERE YOU, as I was, impressed with the beauty and symbolism of this year's IRA program cover with its powerful, uplifting hand which supports an erect human figure, book in hand and arm outstretched in aspiration toward the beyond? This truly represents our IRA, which is large and powerful as your helping hand in the area of reading and which aspires to do bigger and better things.

Our Association has become huge, is growing steadily and rapidly, and withal has a dynamism that assures future accomplishments. I know of few organizations whose leadership and membership reflect more enthusiasm and unselfish, dedicated service. The year behind us has opened wide vistas and achieved mightily; the year ahead promises much.

Because we are so large, we have problems; we must work to solve them immediately. Hugeness tends to mean that the central organization—your officers and board, your central office personnel—operates afar from local councils, from members like you and me. It tends to weaken the influence that IRA can have in reaching into individual classrooms and upgrading reading instruction. Yet such is the purpose of IRA and, in 1966-67, we must endeavor to get closer and to keep close to local councils and their members.

How can we do this? This has been the problem confronting the incoming president and the board. These are the actions thus far taken:

1. A Regional Conference and Service Planning Committee headed by Amelia Melnik of the University of Arizona has been formed. Seven regions, dividing the United States and bordering sections of Canada, have committee members to work with Mel in planning regional services and/or regional conferences to be held in the fall, close enough that many teachers and school personnel unable to travel to the international convention in May can attend the near-by regional conference and hear the "good word." It is hoped that the program of IRA can thus reach individual members in a stimulating and helpful way. This next year will be an exploratory one in which the committees get regional machinery organized for services and fall conferences in future years. It is hoped that at least one regional conference will be worked out this fall as a trial run.

2. IRA will try to help local program chairmen plan their annual program schedules. A very active Council Aids Committee is already deep in work under the dynamic leadership of Virginia D. Moore and Gil Schiffman. You may soon expect an announcement that kits of helpful materials are available to help you plan programs in three specific areas of reading. These kits, when ready, can be purchased at small cost and should prove truly helpful in program planning—and, we hope, in aiding local councils to use local talent more.

3. The Federal Government is making more and more funds available to schools

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[9] Marguerite DeAngeli. *Door in the Wall.* New York: Doubleday & Co., 1950.

and colleges. It seemed that IRA should help member groups to know how to apply for funds, how to plan projects, how to select and to order appropriate materials, and the like. So a Project Advisory Committee has been set up to aid schools, colleges, and various project leaders in applying for and utilizing funds from not only the government but foundations like the Ford Foundation. Where could I turn for a leader more resourceful, hard-working, and knowledgeable than Ted Clymer, your past President? He has jumped the gun and, before the "year ahead," has been aiding in projects like Ed Summers' remarkable program of making abstracts of articles on reading, and retrieving materials that might be lost. William Sheldon is going ahead with a significant project on literacy or adult basic education. These projects are being financed; others are in the offing. We expect big things, Ted.

4. One way that IRA has been reaching you in a helpful way has been through its publications, which received such a boost under the leadership of past-past-president Nila Banton Smith. Besides the annual *Proceedings,* we have three journals—one, a new and scholarly journal of research—many bibliographies and reading aids, and the Perspectives, which will continue to be developed under Ramon Ross, Marjorie Seddon Johnson, Thomas Barrett and Wallace Ramsey. Two types of committees have been organized to aid in this enormous publication program. First, an Editorial Advisory Committee has been appointed to review the numerous manuscripts that have overburdened the Publications Committee. Our marvelously able James Kerfoot of Wisconsin State University in River Falls has accepted the chairmanship of this committee. About twenty persons will work with him to evaluate some of the more recently developed types of publications and unsolicited manuscripts and recommend what to do about each.

In the second place, a new policy has been approved by the board; namely, the publication of a series of scholarly, definitive volumes on specific aspects of reading. Each will take from four to five years to prepare; the committee in charge of each is to scour the United States and Canada, as well as our world neighbor countries, to get the best available authorities to do the writing. To date, two committees are operating: Administrators and Reading under the joint chairmanship of Thorsten Carlson of Sonoma State College and H. Alan Robinson of the University of Chicago; and Evaluation of Reading Programs, of which Mary Austin of Western Reserve University and Henry Bamman of Sacramento State College are co-chairmen. Incidentally, we hope that two projects begun under our insightful president, Dorothy Bracken, will be published under the aegis of these scholarly volumes—an expansion in depth of the project on disadvantaged children (led by Millard Black and Gertrude Whipple) and a volume on adult basic education to be prepared under the leadership of William Sheldon. A movement is under way to find a major publisher to edit and promote sales of these volumes.

We have still more!

5. Dorothy Kendall Bracken is to head a committee planning educational tours to American (U. S. and Canada) school systems and colleges or universities with outstanding reading programs. Well under way is planning for a trip that will culminate with participation in the anniversary program of the University of Alaska. Watch for announcements. Be the first to apply. I shall try to be *that* first!

Remember that we are the *International* Reading Association. Already we have councils in or are affiliated with the United Kingdom and the Scandinavian countries, including the 3000 Danish members whose affiliation is brand-new. So the year ahead calls for our getting closer to our world neighbors.

6. Efficient, wise Al Kingston of the University of Georgia has consented to be chairman of an International Exchange Committee, which will next year explore ways and means of exchanging personnel and publications on reading between the North American Continent and the Eurasian-African affiliates and members. Al will aid us in clasping hands across the seas.

7. A seventh committee is about to be

activated—a committee to study and evaluate automation in reading. Its members and chairman are yet to be notified.

The year ahead will culminate in the convention at Seattle in May. I hope to see all of you there. Your president-elect, Alan Robinson, has already made the framework for this convention and has surveyed a list of possible participants. He has very interesting ideas which should result in a stimulating, satisfying convention. He is seeking to feature the best of the new, to attack the most urgent of our problems, to secure the best available talent. To aid him we have circulated up to 7000 postal cards to you and other members so that he may receive the names, addresses, and topics which may well be featured at the Seattle convention.

You can well see that the year ahead will be a busy one for many of us and, we hope, an effective one in bringing us closer together in a common effort to improve reading programs. The cover on this year's program is a worthy symbol of IRA's helping hand and upward reach toward significant accomplishments in the reading field. Let us wish one another well.

3. The International Teacher

SIR RONALD GOULD, General Secretary, National Union of Teachers of England and Wales, and President, World Confederation of Organizations of the Teaching Profession.

IT IS AN OLD QUIP that Britain and the U.S.A. are two countries separated by the same language, and it is partly true. But does it matter much if pants are outer-wear in the U.S.A. and underwear and not mentioned in polite society in England? Does it matter if suspenders hold up trousers in the United States and socks in England? Or if an American colleague tells me that a teachers' organization is to "host" a conference when we never use the word "host" as anything but a noun, or an American talks about "containerized merchandise" or "television-wise," phrases which are perfectly intelligible but never used in England? Language is a living thing and living things grow, so I expect change and variation. But this makes it all the more important that an Englishman speaking in America should follow Voltaire's rule: "If we are going to have a discussion, let us first define what we mean."

What, then, is the international teacher? Is he akin to Mark Anthony's crocodile, "shaped, sir, like itself, and it is as broad as it hath breadth; it is just so high as it is, and moves with its own organs?" Or is it possible to be more precise and give to this "airy nothing a local habitation and a name?"

I define the international teacher in two ways. First, he is a teacher conscious that he must prepare the young for life in a community that in all its aspects—cultural, academic, economic, governmental—is growing increasingly international. Hence there is the teaching of international affairs, school activities for UN Day, Commonwealth Day, Columbus Day, Universal Children's Day, and similar international celebrations. Hence, in some cases, teaching is given an international dimension through history, language and geography, and the traditional disciplines, or through character training in tolerance, generosity and idealism, which are essential to a civilized way of life for all the world.

Secondly, the international teacher recognizes himself as part of a profession that at its best rises above the distinctions of color, race, creed, sex, and wealth, and thinks only of the child, his needs and his possibilities. He knows that his work conditions, the theories that underlie his own school's system, the type of training he is given, the books and equipment with which he is provided, are shaped, modified, and sometimes transformed by agreements reached at conferences, information exchanged at seminars, discoveries made in laboratories, techniques piloted in a few schools, surveys conducted, and theories written, not simply in his own country but in countries right across the world. He knows that what John Donne said of mankind in general is true of himself, that he is not an island entire of itself, but a piece of the continent, a part of the main.

If the international teacher exists, and he certainly does, why, then, is it necessary to talk about him? Because he does not always realize the magnitude or the difficulty of his task.

The Unesco Constitution declares: "Since wars begin in the minds of men, it is in the minds of men that the defenses of peace must be constructed." A searching look into our own minds will at times reveal prejudice, envy, hatred, malice and selfishness, all of which undermine the defenses of peace. And yet we teachers are expected to encourage children to transform their thoughts, attitudes and lives, to buttress the defenses. So I simply ask, are we good enough for such a task?

Again, look around the world at schools and their teachers. Look at the oversized classes, inadequate school budgets, bad buildings, lack of books and teaching equipment, unsatisfactorily-trained teachers, underpaid teachers, their lowly status and their limited freedom of action both in the so-called developed and under-developed countries. Indeed, in educational matters, even here in the richest country on earth, you are still undeveloped, as are we all. It is only a question of degree. Every country needs an educational revolution, but some need a bigger one than others. Again, I simply ask, are we good enough for this task?

In *The Catcher in the Rye,* Holden Caulfield complains: "You can't stop a teacher doing something he wants to. They just do it." One great source of our professional strength lies in those teachers who, oblivious of school boards, superintendents, principals, inspectors, advisers, counselors, and all the rest, have worth-while ideals, believe in them and devise curricula and methods to achieve them. They "just do it." Others, however, though equally idealistic, hardly know where to begin. So let me spell out what the international teacher must do.

To prepare his students for life in the international community, the teacher must equip himself to take full advantage of the research undertaken in curricular reform, of the up-to-date information on attempts at international cooperation, and of information about conditions in other nations. And he must try to shape his student's character so that he is tolerant and understanding, not only towards mankind or the world in abstract, but to the child sitting next to him, to his next-door neighbor, and, above all, to any who belong to oppressed or despised groups. For there is no great virtue in being tolerant and understanding to those you like.

No doubt it was the provision of knowledge of the whole world and the encouragement of right attitudes that the United Kingdom National Commission for Unesco had in mind when it declared in its 1952 Report: "We shall look in vain for a true and creative citizenship in the world of tomorrow, unless we are determined to lay its foundations in the schools of today. Teaching for citizenship and international understanding must not be regarded as an extraneous duty or a piece of political propaganda. Political education is inherent in all true education."

To begin, then, where can the factual knowledge for teaching international citizenship be found? In many places. A range of inter-governmental bodies, including the UN, Unesco, the Council of Europe, and the Pan-American Movement have published syllabi and prepared teaching material. Various state boards of education in the U. S. and the Department of Education and Science in Britain have issued curriculum guidance.

Yet, in all this lurks the danger that "International Studies" may become just another curriculum subject, just another section of the timetable. It is all too easy to teach a child in such a way that he or she puts the knowledge and skills learned in each subject into watertight compartments, not seeing the relevance of physics to history, of history to civics, of mathematics to geography, of international understanding to history, geography, arts, civics and religious instruction. That is why the old bit of doggerel—

History is about chaps;
Geography is about maps

is so absurd. Both history and geography are about both maps and chaps, and a multitude of other things besides. Life is a whole. To make a timetable, life can be chopped arbitrarily into bits. To make teaching in world order effective, the bits must be welded into a whole.

If this is accepted, all become civics teachers. All become international teachers. The New York Board of Education, in its report "Towards Better International Understanding" argues: "Every teacher of every subject at every level has the obligation and opportunity to make a contribution toward this ideal," and the board is right. World understanding cannot be left to the civics teachers so-called; we should all be civics teachers.

This, however, is more simply stated than achieved. In a school system like my own, based on the academic freedom of the individual teacher and the individual textbook author, direction from above can do nothing. All teachers must be persuaded, and all must consciously accept their responsibilities. And even in systems where guidance is clearly given in the shape of an approved curriculum, it is by no means certain that the actual teaching will be directed to the goals intended. It is possible to teach a syllabus intended to produce international understanding in such a way as to promote narrow nationalism.

Let us take a concrete example. In 1948 the American Council on Education produced a report on "Intergroup Relations in Teaching Methods," which complained of the use of phrases such as "half-breed," "teaming hordes," "swarms of immigrants," in describing the growth of the United States in the Nineteenth Century. But how many teachers, one wonders, here and elsewhere, still use such phrases?

Again, bodies such as Unesco and the International Schoolbook Institute in Brunswick have kept a permanent vigil for harmful statements in textbooks. But not even the combined efforts of Unesco, the Textbook Institute, inspectors, superintendents, principals, the army, navy, air force, and police force could ensure that no teacher ever said or did anything which hindered the movement towards international understanding. We need convinced internationalists in the classroom, not in ones or twos, but in millions. In the last analysis, the teacher's attitude is more potent than all the textbooks. Look, then, to yourselves, my fellow teachers, and make sure you are truly international.

But more than this needed. The content of history, for example, must cease to be mere description; the causes, purposes, hates, loves, and jealousies behind events must be revealed. The 1953 Unesco History Book Survey says: "Authors and teachers should explain and give understanding so that children may develop a critical sense. Writers and teachers must be careful to avoid presenting the stream of events as an inevitable and necessary succession. However, they should not neglect those differences which permit a better understanding of certain mental and social attitudes." In other words, the international teacher of history should teach history in a way that illustrates the relevance of the ideals taught in "International Studies." One of Victor Hugo's characters complains: "When I talk to you about me, I talk to you about you. How is it that you do not feel this? How insensitive you are that you believe I am not you." This is what imaginative teaching is about. When I can get into your skin, when I can feel as others feel, I am on the way to real understanding. So please don't use the "1066 and All That" method. Rather, teach so that the student feels, hopes, and fears just as Caesar, Luther, and Lincoln did. History taught like this enlarges sympathy, compassion, and understanding and makes us better able to face tomorrow's problems. G. K. Chesterton declared the purpose of history is "to show tomorrow, the gorgon at which we dare not look save through the shining shield of yesterday lest we be turned to stone." Indeed it does—if properly taught.

The international teacher faces yet another challenge—the reconciliation of the national with the international, of patriotism with internationalism. History, civics and geography quite rightly concentrate mostly on the immediate environment, our own nation. It would be sad indeed if internationalism could only be achieved by banishing patriotism. Yet teaching the past of our own nations should not be too narrow. The story of the Founding Fathers, of Lincoln or Kennedy, of Simon de Montfort, Wilberforce or Churchill, should point to the higher ideals that inspired them and which can be universally appreciated. As Sir Fred Clarke said in an address on "Education and World Order," delivered a week after the end of the Second World War: "Now we shall, as before, deliberately inculcate patriotism, but on a high and comprehensive level. The growing duties and obligations of world citizenship will be absorbed within the compass of a liberally conceived national duty. So we may put an end to the strange and pernicious idea that between patriotism and internationalism there must be a choice."

The end product of all these processes, however, should be a student who loves both his own country and others, and who can say with Marcus Aurelius: "My nature is rational and social, and my city and my country so far as I am Antonius is Rome, but so far as I am a man is the world."

One of the most effective ways of reconciling patriotism and internationalism is through the international exchange of teachers and students. In "The Nature and Development of U.S. Cultural Relations," George Schuster wrote: "Cultural relations can be effective only when minds meet," and thousands of American and English teachers could testify that their year's teaching on exchange has given them a deep understanding and strong affection for the other country.

In the U.S.A., however, because of the vastness of your territory and the distances involved pupil exchange has not developed to anything like the extent it has in Western Europe. We estimate that half a million British pupils visit foreign countries each year. This is good, but not good enough, for no figure short of 100 per cent provides ground for complacency. Nor should we be satisfied when so few British children visit the U.S.A. Surely affluent societies such as ours, with the advice, guidance, and resources of enlightened school boards, states, local authorities and departments of education should enable many children to cross the Atlantic. Money spent in this way would produce rich returns.

Whatever the means adopted, the international teacher must ensure that the lessons of tolerance and idealism are practiced. In 1854 a classic cartoon appeared in *Punch* showing a couple of Londoners looking at a stranger. The caption read: "Who's 'im?" Such was the unpleasant attitude of the English to *frogs, wogs, Huns, niggers, barbarians, gentiles,* the "lesser breeds without the law." It is a dangerous attitude in the shrinking and more closely integrated world of today. Yet it still persists. It is found in Birmingham, England, and Birmingham, Alabama. That is the difficulty about toleration and understanding. It is so easy to sing—

The little black baby that rolls in the
sand,
In the country that's over the sea,
Is my little black brother, and Jesus
loves him
Just as he loves you and me.

—easy because he is far away and toleration demands neither understanding nor effort. I would not be at all surprised if some who practice apartheid in both Birminghams would condemn it in Rhodesia or South Africa. Indeed, are we even sure that we ourselves do not apply traditional prejudices on our own doorstep? Thus it is especially important to persuade children to be kindly, tolerant, and understanding to the stranger, the poor, less intelligent, or differently colored in their midst.

This conference, however, is basically concerned with reading, and you may well ask if the teacher of reading or of literature can be an international teacher. Indeed he can be, and for three important reasons.

First, in a very real sense, he is a preserver of our common cultural heritage. In one of his short studies, James Anthony Frouds imagined himself on the Day of Judgment being called upon to testify as to his accomplishments on earth. He cited his writings.

Then witnesses were called to testify against him, and this is how he described them. "They seemed literally to be in millions and I had eaten them all. I talked of wages. These had been my wages. At this enormous cost had my existence been maintained. A stag spoke for the rest. 'We all,' he said, 'were sacrificed to keep this cormorant in being and to produce the miserable bits of paper which are all the art he has to show himself'."

Miserable bits of paper indeed! Yet without these miserable bits of paper, without books, the Bible, Torah, Koran, Shakespeare, Milton and all the rest, without language and thought we should only be animals eating other animals, with no knowledge of the past, with no real understanding of life or moral sensibility. Reading then, preserves our cultural heritage.

Secondly, reading of the worthwhile is civilizing. All of us need the nourishment that comes from great literature. Listen to T. S. Eliot: "Unless we have those few men who combine an exceptional sensibility with an exceptional power over words, our own ability not merely to express but to feel any but the crudest emotions will degenerate." We certainly need writers of exceptional sensibility, but never forget that some of their sensibility can rub off on to readers. The writing of men of great sensibility can elevate us all. Who, for example, can read Shakespeare intelligently without being personally involved? His problems are our problems. He speaks to our condition. Who amongst us, if I may particularize, has not dithered like Hamlet, torn between "to be" and "not to be," arguing, as academies usually do, on the one hand this, on the other hand that, and finding it difficult to make the choice? Who amongst us has not felt emotions similar to those expressed about his own land by John of Gaunt?

This royal throne of kings, this sceptred isle;
This earth of majesty, this seat of Mars;
This other Eden, demi-paradise;
This fortress built by Nature for herself
Against infection and the hand of war;
This happy breed of men, this little world,
This precious stone set in the silver sea.

Or who amongst us has not at some time in his life felt the profound truth of the lines in one of the sonnets:

. . . love is not love
Which alters when it alteration finds,
Or bends with the remover to remove,
O, no! it is an ever-fixed mark,
That looks on tempests and is never shaken . . .

Yes, it's true. Great literature helps us to understand ourselves better and to make us better men.

And thirdly, reading the worthwhile with understanding helps us to avoid loose thinking. Slipshod language at worst misleads at best, fails to communicate. Thought and language are inseparables in good writing as they are in good reading. Slipshod writing and slipshod thinking are the products of slipshod minds. Double-talk, double-write and double-think are all the products of insincere minds. Now you see why I think reading so important. If it is critical, as it should be, it can separate truth from falsehood or half-truth. It can destroy ignorance and prejudice. It can enable us to understand our fellow men the better, which is the basis of world peace and understanding. Confucius was once asked by a disciple what he would do first if he had to administer a country, and he replied: "It would certainly be to correct language." This surprising reply produced the retort: "Why? This has nothing to do with the matter." And Confucius answered: "If our language is not correct, then what is said is not what is meant; if what is said is not what is meant, then what ought to be done remains undone; if this remains undone, morals and art will deteriorate, justice will go astray, the people will stand about in helpless confusion. Hence there must be no arbitrariness in what is said. This matters above everything." I myself would not make quite such an exaggerated claim, but I would say that any teacher who conscientiously teaches children in their reading to question, to reason, to discriminate, to choose, is helping to destroy prejudice and misunderstanding and usher in a world order. He may justly be described as the international teacher.

Now I can turn to the membership of

a world-wide profession. Whatever else a profession means, at least it must mean this—a group of people bound together because they profess something outside themselves and bigger than themselves. And truly professional teachers profess their faith in the possibilities of every child and serve each other in solving both academic and professional problems.

Much more work has been done than is often realized in helping children to realize their possibilities. The first International Conference on Educational Research, in Atlantic City in 1956, declared: "Education research is the most substantial and important factor in educational progress, and international cooperation in such research must be cultivated and helped to grow." Various inter-governmental bodies have sponsored such work, in particular Unesco, the OECD, and the Council for Cultural Cooperation. Besides this, many international gatherings on specific aspects of education are organized by non-governmental bodies, such as the World Confederation of Organizations of the Teaching Profession, at which we have been proud to welcome your Executive Secretary, Dr. Ralph C. Staiger. And teacher exchange through the English and U.S.A. interchange scheme, the Commonwealth exchange scheme and the Fulbright-Hays Act, all help teachers to share the knowledge and experience of others. Governments and private organizations publicize and encourage discussion of many worthwhile educational researches, of international projects bearing on education, and of the positive results of international exchange and visits. But more could be done.

I now turn to the international teacher's more narrow professional concerns. At this point I must say something about the World Confederation of Organizations of the Teaching Profession. In a comparatively short history of fourteen years, it has made a positive contribution to the status of teachers. Its study of the status of teachers in Africa and Asia; its special committees on adult education, rural education, technical and vocational education, teacher journals, audio-visual aids, and handicapped children; its congress themes such as Parent-Teacher Cooperation, Teacher Shortage, Child Health, Equality of Opportunity, and the Role of Teachers in Educational Planning, have given a valuable stimulus to educational reform throughout the world. In addition, it carries out a wide range of research projects and promotes leadership training among teachers in developing nations.

But more important to my theme than the record of activities is the lesson the WCOTP teaches. It teaches that international relations cannot be left to governments alone. "Nations are the citizens of humanity, as individuals are the citizens of a 'nation,'" said Hassini, but he was wrong. For better or for worse, individuals and all sorts of groups are the citizens of humanity as well as governments. Of course, governments have an important part to play, but that does not diminish your responsibility and mine as individuals and members of groups to be true citizens of humanity. And many teachers have recognized this, not least in the U.S.A. Indeed, the teachers of the world are heavily in debt to the inspired leadership of Dr. William Carr, the Secretary of both the N.E.A. and WCOTP, whose efforts have made WCOTP the most representative non-governmental organization in the world.

I have shown that the international teacher must serve his profession, but you may well ask: "What can he get out of it?"

And the answer is—a great deal. This autumn governments will be asked to approve the ILO/Unesco Declaration on the Status and Rights of the Teacher, a declaration which owes much to the work of WCOTP. This, when ratified by governments, can improve the conditions of work and status of millions of teachers, perhaps even your own. Again, information on the development of education and teachers' conditions in other countries can help to advance the interests of the profession in one's own nation. Again, the solidarity of the world profession can help to influence the course of events in a particular country, as it has certainly done in parts of Africa. For the problems of the profession, though they take different forms, are universal. Teacher shortage, inadequate salaries, inferior social status and overcrowded classrooms, are found everywhere, and every attempted solution throws light on our own efforts at home.

This is the really valuable work of bodies such as the World Confederation: not the passing of idealistic resolutions, but research, sharing knowledge, and support for the weaker organizations. Jaw-jaw is of little value. Study-study, share-share, and sometimes struggle-struggle are much more valuable. That is why, besides conferences, the Confederation has on-going programs of mutual aid on teacher salaries, leadership training and similar ventures. To take just one representative year, in 1962 the Confederation sponsored an All-Africa Conference on Health and Physical Education, a Teacher Housing Seminar in Peru, Leadership Training Schemes in Nigeria for English-speaking organizations, and in Dakar for French-speaking organizations. This is the real bread-and-butter work of international teacher cooperation.

From all this you can see that the international teacher does exist. Each of us is an international teacher, though some are slightly and others more fully committed. All of us need to be completely committed. The American drama critic, Alexander Woolcott, once reviewed a play with the single sentence: "The scenery was beautiful, but the actors got in front of it." We, teachers acting on the international stage, must play our parts as well as we know how; for the scenery, the background, east-west tension, Rhodesia, and Vietnam, are all far from beautiful. Like Holden Caulfield's school master, we must "just do it."

We must encourage the growth of international teacher activity in academic research, in curricular reform, in improvement of the conditions of work of the profession. We must improve understanding and tolerance through education, both in formal lessons and in character training. We must ignore Bernard Shaw's advice "Never put off until tomorrow what you can put off until the day after tomorrow," and do it now. In the past, countless teachers have done just this; many are doing so today. All should do so.

The 1964 Year Book of Education was dedicated to the theme of "Education and International Life." Authors from many countries explained the contribution being made by their own teaching profession to this goal of understanding. The President of the Academy of Pedagogical Sciences in Moscow, describing the work of a Moscow school, wrote: "In February, 1959, the school organized an exhibition to commemorate the 150th anniversary of the birth of Abraham Lincoln, the great American statesman. Quite recently they organized an evening gathering to mark the bicentenary of the birth of Robert Burns . . . the evening concluded with a chorus of teachers and pupils singing the poet's:

For a' that and a' that,
The time will come for a' that,
When man to man the whole world o'er
Shall brothers be for a' that.

If the teachers and students really understood what they were singing, if teachers in other countries did, too, then for a' that and a' that, the road ahead leads onwards and upwards towards the sun.

4. On the Frontiers of Reading

EDGAR DALE
Ohio State University

WHEN I WAS invited to speak at the IRA convention in Dallas, I looked over what I had said seven years ago at Toronto. Since the ideas I presented there have not yet been used up, and since my audience was a different one, I thought I might slyly crib a little from my earlier speech. But then I remembered that this talk would also appear in print and my duplicity would be discovered. However, some of my ideas do involve creative self-plagiarism. Further, we all know that speakers have only a few major ideas and vary their presentation by hollering in *different* places.

Much that has happened in the last seven years has a bearing on reading. Our geoastrophysical frontier has extended. The moon as a sentimental object of poetry is out. We won't need to wish for it—we shall soon have it. Our agricultural surpluses are being sharply reduced.

Over one-fourth of our exported wheat is now going to India. If you were asked to name the states of the United States that are farthest East, North, South and West, what would you say? Maine, Florida, Minnesota, Oregon? Actually, Alaska is not only the state farthest north it is the farthest east and the farthest west, namely 180° West Longitude and 179° East Longitude. East and West do meet in Alaska. Our physical frontiers have been extended—what about the frontiers of the mind and the spirit?

Speakers these days must say that the world is changing. And you may remember that the title of the IRA Conference in Toronto was "Reading in a Changing Society." But society has always been changing. In 1853 a Clipper Ship went from Rockland, Maine to Liverpool, England in 13 days and one hour. It was a changing world. In the Railroad Age Locomotive 999 moved at a speed of 112 miles an hour. The date was 1893. It was a changing world.

But the pace of change is accelerating. The best estimate now is that men will change their jobs some six or seven times in their working career: an indication of the great need for continuing education to develop the flexible man. Our present high degree of specialization is indicated by the story of the executive who came home one evening and excitedly said to his wife, "I've been made a vice president of my company!" She was not very enthusiastic, saying that, after all a vice president these days was quite common and that a national grocery chain in Cincinnati had a vice president in charge of prunes. This deflated her husband and he could hardly believe his ears. So next day he phoned this company and said to the operator, "I want to speak to the vice president in charge of prunes." The operator asked: "Bulk or packaged?"

Reading In Its Social Setting

The first frontier I want to talk about is the broad social setting of reading—economic, psychological, sociological. The syntax and vocabulary of a child are conditioned by where he lives and the income of his parents. In general, the wealthy suburban children have the largest vocabulary the inner city children, the lowest. Is reading ability a function chiefly of level of income? If so, perhaps we should spend our first-rate energy working to increase the income of the deprived family. Perhaps a guaranteed minimum income would do more to improve reading than anything we are now doing.

The social outlook of people vitally affects their reading skills and attitude. Many families see the future as bright and hopeful, with hardly a cloud on the horizon. Others feel rootless. There is excessive anxiety, a spiritual malaise. They are estranged, alienated, excluded.

Their dreams for themselves and their children are not being fulfilled. Their present bitterness arises out of past affronts to their dignity. Auden, in his poem, "Age of Anxiety," says:

> *It is getting late.*
> *Shall we ever be asked for?*
> *Are we simply not wanted at all?*

More than one juvenile delinquent has said, "Well, at last someone noticed me." But the restoration or development of a sense of dignity, of our common humanity is a great social frontier—for both the poor and the rich.

What can literature say to people who do not feel a sense of continuity with the past or hope for the future? Some of these continuities can come from sensing our national ideals, becoming aware of our pioneers. To feel a sense of dignity, of self-respect, we must see ourselves as part of this seamless web of history.

Laura Ingalls Wilder has given many of us, our children, and our grandchildren a sense of the contribution of the pioneer family to the continuity of our American tradition. My daughter first heard *The Little House in the Big Woods* when it was read to a group of third-graders at the University School in Columbus. Dorothy then read it to her third-graders when she was teaching. And now her own children are hearing it read to them. Family traditions in reading build a sense of continuity out of which national traditions grow.

Do your students see the past in the present, the present in the past? Without a feeling for our own linkage to an historical chain, we shall be spiritually poor, indeed.

Sir Winston Churchill said it this way: "If we open a quarrel between the past and the present, we shall find that we have lost the future." We can link the past and the present with the future through literature, poetry, works of art, museums, plays, films, recordings.

In times like these, what role can the reading and teaching of literature play? Why do we read anyway? We do so to become what we ought to become, to be fulfilled, and to discover how to help fulfill the lives of others. Some of that fulfillment comes right now—some is postponed for the years ahead.

Certainly the emotions of joy and tragedy were not alien to those who lived a long, long time ago, and these joys and tragedies are treated and imbedded in the great works of literature. The problem of love and hate wasn't originated by Dostoevski who had Father Zossima say: "Hell . . . is the suffering of being unable to love." Reading the book of Ruth or the letters of Paul is a more up-to-date, more fruitful way of learning about love than reading *Peyton Place* or seeing it on TV. Literature has been defined as news that stays news.

Is our basic spirit today one of affirmation, or are we numbed by fear and anxiety? Archibald MacLeish says of Carl Sandburg, "He is the poet of the American affirmation, a singer of the city where no one before him thought song could be found, and the voice of a prairie country which had been silent until he came."

The Process of Reading

But what about the reading process itself—its perceptual and conceptual elements? I see a challenging frontier ahead of us in defining reading behaviors more rigorously, outlining and developing sophisticated goals in the teaching and learning of reading. The other day a teacher told me that one-fourth of her children could read certain material but that they didn't understand it. Where did we ever get the idea that reading without comprehension is reading? When Milton's daughters read Greek and Latin to him, they didn't understand what they read but Milton did.

Notice that I incorrectly said, "They *read* Latin and Greek to him." They didn't read. They pronounced words. It's an easy trap to fall into. One day on a train in Japan I pronounced romanized Japanese to my interpreter. He translated it into English—much to the amusement of the passengers. Was I reading Japanese? No, I wasn't. I was pronouncing Japanese words, breaking the sound code, but not the meaning code.

It is redundant, therefore, to say "read with comprehension." When you break the sound code, you are reading if the sounds are meaningful to you. But every teacher knows that the ability to speak the words does not guarantee that the meaning has been comprehended. Many high school teachers are reluctant to "teach reading"—although every teacher must do so—because they confuse the perceptual aspects of reading with the conceptual aspects. When we say that every teacher should be a teacher of reading, we don't mean of elementary reading.

The research frontier demands that we probe much more deeply the role of reading as a part of a complex of language skills and abilities. Anyone can see that reading and writing are functionally linked, but this tells only a part of the language story. Language, or communication, if we prefer the term, includes two basic processes—the producing or creating of messages and the receiving, the consuming, or interpreting of messages. We produce messages by speaking (including the making of sounds of music), by writing, and by visualizing. To visualize means to demonstrate, to dramatize, to picture, to draw, to map, etc. We interpret or consume messages by listening, by reading, and by observing.

Typically, we speak of these combinations: reading and writing, speaking and listening, visualizing and observing. But a little thought quickly discloses that each of these six media of communication reacts with all of the others. We read and listen. We visualize and then write, as with a play. We may read about Texas and then we go there and observe, and perhaps record our memories on film. In short, communication uses a multi-media approach. The language modes are interrelated. *If you improve one medium for conveying language, you tend to improve the others.* But conscious attention to transfer can sharply improve learning.

The 2,500 to 3,000 words which first-graders know when they enter school are obviously not learned by reading. Further, many of us as adults learned by first-hand experience, by conversation, or through pictures the meaning of such words as *trillium, pollen, trilobyte, finesse, serendipity, caryatid, inning, sauté,* and *retro-rocket.* Visualizing by photograph, painting, drawing, model, or by actual construction is an excellent way to get new meanings. Thus if we define reading as getting meaning from the printed page by bringing meaning to the page, we realize that many of these meanings brought to our reading will be gained by experiences other than reading. But reading is a superb way to consolidate and reorganize the meanings secured by looking-listening and by visualizing-observing.

In short, the varied ways of communication help us to increase our background of concepts. And the richer the background of concepts one can bring to the word symbols, the richer and more evocative one's reading will be. This statement may seem to labor the obvious. However, there are some who object to getting experience by field trips or by audio-visual experience because they say that reading is a better, more efficient way to do it. Joseph Wood Krutch has made this allegation.

Logically, this point of view suggests that it is better to read about a walk in the woods than to take one, to write a letter to a person instead of talking to him directly, to read about golf instead of playing it, to read a Shakespearean play instead of going to Stratford to see it. Reading does not eliminate the need for first-hand experiences. Reading may both precede and follow first-hand experience. The goal is concept building, language development—and the more avenues of communication we can use the better. We improve reading by enriching the experiences we bring to reading. Reading helps us to verbalize the rich, non-verbal experiences we have had, to index and to label them.

Clarifying Terminal Objectives

I stated earlier that one of the massive future contributions to the teaching and learning of reading involves developing greater clarity in regard to the terminal behaviors sought. This behavioral analysis is of special help to the teacher of reading, the curriculum maker, and the research worker.

Much of the confusion regarding where and how reading should be taught is caused by inadequately stated terminal behaviors. Roughly speaking, we can divide these behaviors into three groups—reading the lines, reading between the lines, and reading beyond the lines. Or, more succinctly, *duplication, implication* and *application.* I suggest that the use of taxonomic analyses such as those developed by Benjamin Bloom and David Krathwohl in *Taxonomy of Educational Objectives, Handbook I: Cognitive Domain* and *Taxonomy of Educational Objectives, Handbook II: Affective Domain,* will be imperative as we think about the future of the teaching and learning of reading.

Bloom divides his cognitive taxonomy into two major parts—*knowledge of,* and *theoretical abilities and skills. Knowledge of* chiefly involves remembering. It is the ability to duplicate what has been said or written—reading and remembering the lines. Essentially it is giving back in one form or another what the author has said. This is the chief intellectual fare of most education today.

What about the second level of classification—the reading which concerns implication and application—critical reading? Is it common now to set up and achieve these higher mental processes in reading? Do we now plan for and teach critical reading from *early* grades through college? In general we do not. One proof of this statement comes from studies of questions asked on final examinations. Generally speaking, from 85 to 90 per cent of these questions are at the simple taxonomic level of reproducing or duplicating what has been read.

Christine McGuire of the University of Illinois Medical College reports that 92 per cent of the test questions given by the National Board of Examiners in Medicine were answerable chiefly by memorization. Do you agree that the kind of reading taught in school or college will be determined in large measure by the way required reading is tested? I believe that if testing does not call for critical thinking—the application of principles, critical judgment and evaluation—then students will read chiefly to remember details. However, if the examinations present questions or problems requiring answers based on critical reading and critical thinking, this is what we shall get. So we must not only learn how to teach critical reading, we must also convince teachers and professors that it is a key goal in the education of children and youth.

Let us look briefly at some of the components of critical reading. Reading as critical thinking as contrasted with reading as reproduction or duplication is well illustrated in the informal reading of a play. You must think like the character in order to give the appropriate stress and intonation. It is a creative process. Reading, we must remember, is also a process of speaking aloud and listening, and we may be neglecting oral reading.

The uncritical reader may misinterpret words. Think of the different ways a sentence can be read aloud: *This* is the time. This *is* the time. This is *the* time. This is the *time*. What does the statement, "he fought with me," mean? It depends on the context, on the emphasis. Or this inscription in a book, "I must say I liked this book"? Something of the subtlety of language is illustrated in this sentence, which has eleven successive uses of the word "had." It is a report about the writing of an examination: Smith, where Jones had had "had," had had "had had"; "had had" had had the examiner's approval.

To read critically, and it is a basic ability of the educated man, we must have standards for determining truth. We can then test the logic of the statements, the extent to which they follow accepted rules for evidence. The question: "Is it true?" is appropriate for the first grader and for the graduate student. It is a critical question in reading research reports, in all interpretation. The term "exegesis," usually related to Biblical criticism, means, literally, a leading out.

Did the event we read about really happen? Are all accounts similar? Too similar? (This might indicate collusion.) In reading, we face the same problem of evidence as does a jury. And juries disagree even when precautions are taken regarding the nature and admissibility of evidence.

A few years ago, William Whyte presented in his book, *Is Anybody Listening?*, a duplicate of an advertisement which he had written for *Fortune* magazine, of which he was then an associate editor. It was a caricature of the pro-business clichés written in defense of capitalism. Here is a sample of its tone:

> *Tim knows what the American Way is, all right. Lots of folks seem to think you can get something for nothing. Not Tim. No siree, you don't catch him running to the government for handouts. Don't hear him hollerin' about security, either.*

And Whyte winds up with this beautiful aphorism: "Everything is everybody's job." More than two thousand copies were requested by business people. When I asked graduate students to read this material, many did not get the point. They read it uncritically.

Mark Twain also did a piece like this in *A Double Barreled Detective Story*. I have had college seniors read it and most of them didn't realize it was a big spoof. What *does* it mean when Mark Twain says "a solitary oesophagus slept upon motionless wing"?

Learning to Change Gears

I have talked about the grave need for a taxonomy of reading abilities. A most important outcome of reading instruction is the mental flexibility and adaptability required to change gears. The able reader knows how to change mental gears when he changes purposes in reading. Sometimes we may need to read fast, to skim. We usually slow down when we read poetry and savor the flavor. And a good poem is worth re-reading.

Many people can only read at one speed—the speed at which they speak—about 125 to 150 words per minute. Sometimes they should read at 25 words a minute (in studying their rich grandfather's will); sometimes, 500 words a minute. Are your students getting practice in slow, critical reading at one end of the scale and speedy skimming or previewing at the other end?

And what *is* speeded reading? Once I told a group of college seniors that I could read 200,000 words a minute. They were dubious so I took my textbook—*Audio-Visual Methods in Teaching*—flipped the pages, and then said, "Ask me any question."

They replied, "This isn't fair. You knew the answers already." But isn't this characteristic of all reading? We can speedily read those things about which we know a great deal and we must read slowly in fields where we are ill-informed or where thoughtful analysis is necessary. Many pupils need remedial *experiences* to improve their reading. And these experiences can be secured through many media—film, television, recordings, field trips, and others.

Good Writing Makes Good Reading

We spend a great deal of time trying to help students read better. We need to spend a lot of time helping producers of instructional prose write better. Good writing makes good reading and bad writing makes bad reading. Materials of instruction prepared for reading by all children need more editorial attention than they now typically receive. This means greater attention to clear, interesting prose and careful field testing. It is imperative that instructional materials be understood by those for whom they are prepared—not too hard, not too easy—sometimes challenging, rarely frustrating. The materials must meet the vocabulary and syntactical levels of the student and also provide a little extra to grow on.

The effective teaching of reading requires greater attention to levels of vocabulary. Vocabulary development is a frontier field for research and development, and it is a neglected field. Our vocabulary is the best single index of our mental development. A rich and varied vocabulary grows out of rich direct and indirect experiences.

I believe that if we put into effect what we already know about vocabulary development we could increase vocabulary levels about 10 per cent—approximately one grade level of advance. Here are a few suggestions for doing so:

Set up a concept glossary for all subjects and classify these terms as critical, important, and desirable. Devise a simple way to check on the growth of these concepts over time.

Arrange for a wide range of reading materials, some of which will be two or three grades below the top reading level of individual pupils. This may be literary material, expository material, and the like.

Ask students to underline in their own books, newspapers, and magazines the words they don't know and look them up when they think they have correctly inferred their meanings.

Define the use of context clues to include not only external clues, but internal structural clues as well.

Curricularize the key roots, prefixes, and suffixes—those which are most highly generative, most productive of new words. Think, for example, of the omnipresence of the Latin and Greek roots from one to ten: *uni* or *uno*, *bi* or *di*, *tri*, *quad* or *quart*, *pent* or *quintus*, *sex* or *hex*, *sept*, *oct*, *nov*, *dec*, *cent* and *mil*. The number of words in scientific and literary fields that are made of these combining forms is very large and critically important when you move beyond the 10,000 or so words known by the eighth-grade pupil.

Think of the generative power of the Latin word *folium*, which means leaf. This gives us foil, cinqufoil, foliaceous, foliage, foliate, folio, trefoil, and many others. You know what a *unicorn* is. *Uni* means *one* and *corn* means *horn*. Therefore, you also know what a *bicorn* is; that is, a cow. But you also know what a *tricorn* is—a kind of three-cornered hat, and a *cornet* is a little horn. And the word *corner* has in it the meaning of horn, as does *cornucopia* which means a horn of plenty, which gives us the word copious or derives from it.

Many college graduates do not know the meaning of *eu* and *dys*. Yet they know eulogy, euphemism, euphony; and they also know dystrophy, dysentery, dysfunction, and dyspepsia (if they are over 40). Yet they may never have generalized the meaning of *eu* and *dys*, namely, good and bad. If there is muscular *dys*trophy, there is also muscular *eu*-

trophy. If you can give a ***eu***logy, you can also give a *dys*logy.

A single root such as the Greek ***onym***, meaning *name*, yields antonym, homonym, acronym, pseudonym, synonym, anonymous, eponym (as Rome from Romulus). *Nom*, from the Latin *nomen*, also meaning *name*, gives us nominate, nominative, cognomen, nomination, denomination, nomenclature, nominee, nominal.

Youngsters who get thoughtful guidance in vocabulary development learn the knack of making new words. Here are new words—not yet in dictionaries—developed by a junior high school class in a so-called deprived school: grapher, graphomatic, sonarscope, jector, phonomatic, autometer, barophone, retrometer, audiograph, audict (same as audiophile), telescribe, telesonic, monocar. These youngsters are evidently becoming verbophiles, not the verbophobes often developed out of over-formalized, dull vocabulary study.

Vocabulary development programs are often too dull, too mechanical, too prim, too unimaginative. We are always talking about helping the deprived child learn to speak like the middle-class child. But why do we assume that minority groups make no contribution to the freshness and vigor of the English language?

I asked a Negro taxi driver in Philadelphia who had the right of way on a rotary. He said, "We call it a *much right*. One man has as *much right* there as another." An elderly Negro said to me, "Your boy sure keeps his shoelaces tied. He knows his way to High Street." He called snapping your fingers to a tune "finger popping." Here are some terms used by Negro children and young people; note their vigorous metaphors.

match	—*fire*
crying	—*a kleenex job*
policeman	—*Mr. Nab, lumpmaker, trigger happy, zero*
the wind	—*hawk*
detective	—*fed, shoe, snoop, radar*
teacher	—*mink job*
a warning	—*tugging my coat*
work	—*sweat job*
water	—*wet stuff*
bald	—*shine, sunny side up, Mr. Clean*
make-up	—*bucket of paint*
immaculate	—*mac*

(*New York City*)

A lumberjack with whom I used to work had many expressive phrases: "He doesn't know any more than the law allows." "He is lame where no cane will help him."

Language is changing. The expressive new words may stick. *Snow-job* came out of the Air Force during World War II. I used it then in a manual wondering whether it would make the grade. It has. Many older men and women do not know what it means. But nearly all young women recognize a snow job.

Another excellent way to increase vocabulary is to bring words from your twilight zone, relatively unfocused, into sharp focus. The following words may be in your twilight zone: lares and penates, *pied à terre*, ingenuous, friable, tedium, sedulous, *sine qua non*, apogee and perigee, garrote, nadir. By the way, less than half of college seniors knew the word *garret*. Artists no longer paint in a garret. They get a Fulbright or a Guggenheim to Paris.

Our problem is not merely to learn new words; it is to learn nuances of the words that we already know. What are the differences, for example, between sullen, petulant, and astringent? Irony, sarcasm, and satire? Does obverse mean reverse? Hoi polloi does not mean the rich and favored as assumed in a Perry Mason broadcast about two months ago.

Confusion in the sounds or appearances of words often results in entertaining boners. For example: "The crusaders were people of a religious *sex*." "The driver stepped on the *exhilarator*." "We are studying *jubilant* delinquency." One man receiving a watch as a 25-year service prize said, "I don't deserve all this *oolagoozing*." A maid told a friend, "I don't like to sing solo. I like to sing *abreast*."

A friend told her hosts in Norway she would make a lemon pie for them. Everybody shuddered because they thought she was saying *lemming*. Or I think of the note that the teacher got, "My boy can't come to school; he has indolent fever." Or the parent who strongly objected because she said the teacher called her boy a *scurvy elephant*. He had called him a disturbing element.

I have suggested a series of frontiers which seem worthy of further exploration. Let me review briefly:

1] We can study reading as *one* of the related forms of language which receives reenforcement from other phases of language and also contributes to their improvement. The problem of language development is central in the education of the culturally deprived.

2] We need a taxonomy of the reading process to state our objectives in behavioral terms so that we can match learning materials to these reading tasks. We must more sharply define the learning tasks of reading from kindergarten through graduate school. If you don't have a clear view of the target, the chances of hitting it are poor.

3] In a rapidly changing world we cannot adequately predict the learning required. Instead, we must teach students to learn how to learn and to develop a taste for learning. This means more emphasis on independent study, on the use of reference materials of all kinds, on the development of libraries to meet the special needs of adults as well as children.

4] Today many powerful organizations have some control over the communication process: Big Business, Big Labor, Big Media—monopolistic and near monopolistic. Hopefully, they might serve as checks and balances on one another. But we also need to develop a race of critics in reading, listening, and observing. This means shifting reading instruction from its present heavy emphasis on information-getting and memorizing to more concern with a study of the implications and applications of the information gained. Critical reading, as the development of the higher mental processes, is an important research frontier.

5] As an international organization we need to give more attention to the international scene. The rich nations are getting richer and the poor nations are getting relatively poorer. ". . . this government cannot endure permanently, half slave and half free." Lincoln said. Neither can our present-day world exist one-third rich and two-thirds poor. In 1961, according to a report by Prem Kirpal, Secretary of the Ministry of Education in India, 76 per cent of the Indian people were illiterate. Among women it was 93 to 94 per cent.

What international responsibility do we have for helping to meet this grave problem of world illiteracy? What can we do to head off the world chaos that lies ahead if we do not equalize opportunities for personal fulfillment? Watts in Los Angeles will be multiplied 1,000 times over in the rest of the world if something of heroic proportions is not done to meet the desperate world hunger for food and enlightenment.

I close by mentioning the most important frontier of all—the relatively unexplored frontier of teachers' attitudes and abilities in the field of reading. Jeanne Chall has pointed out that in experimental projects in beginning reading in this country and in England the children were alert and excited and so was the teacher. Usually, if the teacher is excited, so are the pupils. If the teacher is apathetic, so are the pupils. Sometimes our research does not really test the new reading program, it tests the old program taught by an excited teacher. If she "instructs with delight" (Horace's words), then children will be delighted with their instruction.

We found this true in our vocabulary development program in Ohio. We didn't need to ask the children what the teacher's attitude was regarding the project. If the children liked it, so did the teacher. If the teacher didn't like it, neither did the children. It is hard to distinguish cause from effect, but teacher attitude is extraordinarily important in all learning.

To improve reading tastes and methods of reading there must be a live model to imitate. It is easier for pupils to see, to experience, these live models in the lower grades than it is in the high school or college. The small child shares the excitement and interest of hearing a teacher read a book to the class. But where in the high school or college are models of excellence in reading exhibited? The consummatory values of reading are underemphasized and the narrow, instrumental purposes of reading are overemphasized. Duty murders delight.

I believe that elementary teachers know more about the teaching of reading than some reading specialists think they do. We need a careful talent search to find thoughtful, able teachers of reading who might then contribute their talents more widely within their own school system and their region. Could we develop in every region of a state a "reading-teacher" resource bank to include those master teachers of reading who could be called upon for consultation work?

I have used the term "frontier" often. I did not choose the word lightly. Those of us concerned with developing the liberally educated reader have a remarkable opportunity to insert our levers and move the world. The committed teacher of reading could then say with Virgil's Aeneas, "Many of these things I saw, and some of them I was."

5. Peeping*

ROBERT McCLOSKEY
Scott Islands
Harborside, Maine

MY OLD FRIEND Hugh Troy is responsible for the phrase that establishes the tone of my speech today.

Hugh was a mural painter, a wit, a practical joker of note, and an author-illustrator of children's books—you all know his books, *The Chippendale Dam* and *Five Golden Wrens*.

Hugh, on the morning of his fiftieth birthday, boarded a bus to go to his office. He was looking pretty glum, and the driver asked: "What's the matter, Mr. Troy, why so gloomy?" "Today is my fiftieth birthday," answered Hugh, "and I'm feeling a bit old." "A-hh!" said the driver. "You're peeping through life's westward window, eh?"

"Peeping through life's westward window" has become a favorite phrase in my family, especially since I reached the age of fifty and began to peep—a year and a half ago. I've acquired some of the paraphernalia of peeping; my first pair of bifocals, and some caps on my teeth. I find that I'm beginning to make some of those "involuntary little middle-age noises" that Robert Benchley used to talk about.

There is a bright side to "peeping." For instance, during this past year and a half, I've found that when one begins to peep, one also begins to reminisce.

For more than twenty-five years, as an author-illustrator of children's books, I have been going on the road, making speeches and plugging children's book.

How things have changed since those early years! Why, now an author of children's books on tour is allowed to sleep until noon! He gets fed! In fact he gets wined and dined in one of the best restaurants in town! And today, someone is always nearby to make sure that an author doesn't get tired fingers from signing his name too many times.

Conditions were not always so.

Back in those early days there were only a few hundred children's books published every year, and I was one of only a few authors and illustrators on the road. Things were not so well organized as they are today, and I never knew what to expect when I landed in a town. I was usually under the wing of a book buyer for a department store. Schools and teachers, libraries, and librarians were still on the sidelines or in the background. There having been so few of us, most of those buyers had not had much experience in the care and feeding of a "real live author of children's books." The buyers were all learning the hard way that the same techniques that were successful with Richard Halliburton and Sigrid Undset were not successful with an author of children's books. They all knew that sooner or later, by hook or by crook, they would find out how to handle visiting children's book authors, but in the meantime, they simply didn't know what the hell to do with us!

I'll never forget the first speech, or rather the first *stop* of my first tour.

It was in Toledo, Ohio. In the cold November dawn the buyer met my all-night train from New York. She fed me a roll and coffee at a drug store lunch counter and steered me across the street and into a department store.

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*A substitute speech delivered at the Book and Author Luncheon, Eleventh Annual Convention of the International Reading Association, Dallas, May 7, 1966.

I found myself maneuvered into a position next to the toy department. I wondered about this—this being my first time out—but I didn't have to wonder long. When the store opened I discovered that I was supposed to draw pictures and tell stories to the diaper set while their mothers went shopping.

Fortunately, Miss Wright, who was a children's librarian, came in to say hello. She rescued me from the buyer and the toddlers and whisked me off to the library, where I spoke to a group of children who were attending a story hour. Thanks to Miss Wright, my first day on the road was more or less successful, in spite of that frightening start next to the toy department.

There was a lot of trial and error involved back in those early days. Besides baby-sitting, I substituted for a sales girl who had the day off; I was exhibited in a department-store window, drawing pictures, playing the harmonica, and autographing books. I've handed out doughnuts to plug a bakery, and I once shared top billing with an incubator hatching out ducklings! (Incidentally, *never* appear on the same bill with an incubator —the incubator will upstage you every time.)

Those early trips were seldom one-night stands. I would often be on the road for a week, usually Children's Book Week in November, first speaking in Cleveland, then on to Toledo, Chicago, Milwaukee, St. Paul, with now and then a quick stopover in Dayton or Cincinnati.

Every year there were a few more of us on the road and our trails would cross: Marguerite Henry starting from Chicago and working East, Louis Slobodkin and myself working West from New York. Most years our trails crossed in Cleveland; some years it might be in Toledo.

Though these annual junkets were better organized, we were still under the wings of the buyers; they brought us into town and then farmed us out to various schools, and sometimes to a library.

It was only natural that things should settle into a pattern, and Cleveland was typical.

The lady book buyer there was a dynamo! At seven in the morning I would start the day sitting next to her, or an assistant, inside a taxicab speeding hell for leather toward the far side of Cleveland to get to some school in time for the beginning of the first period. We'd walk in the door just as the assembly bells started ringing, with children starting to file into the auditorium. I'd meet the principal and sometimes a teacher or two, then I'd rush to the stage, unfold my drawing pad, and whip out my chalk.

By this time the children are ready to pledge allegiance to the flag, after which I am introduced. I go into my act, and *bing!* At the end of twenty minutes—that's it! Almost before the principal can say thank you, the buyer has me by the arm pulling me toward that taxi.

You see, we only had ten minutes to get to the next school so we could arrive there just as the assembly bell started ringing. Then pledge allegiance—introduction—twenty-minute speech, and on to the next school. *All day long!*

Misery loves company, and I could always take comfort in knowing that Louis Slobodkin and an assistant buyer, and Marguerite Henry with still another assistant buyer, were in taxicabs somewhere out there in the City of Cleveland, racing toward the next school to make a twenty-minute speech.

I bear the scar to this day—if someone stands me up in front of an audience I talk for twenty minutes and panic—thinking of a wild cab ride to the next twenty-minute stand.

I make it sound pretty grim, but it was really a lot of fun, and at the end of the day we would creep into a bar for a few glasses of plasma and compare notes. There naturally developed a bit of friendly rivalry over who managed to do the most schools.

The best I could do was seven—Louis and I were tied for seven, as far as I can remember. Of course I could have made it eight, but I always used to take time out for a sandwich.

But Marguerite Henry . . . she was undisputed champion. She won hands down! She wrote this book about horses, and one of the horses was a Cleveland police horse. So what happens the next time we hit Cleveland? Marguerite is made an honorary member of the police force and *she* races between schools behind a motorcycle escort, with the sirens going full blast and roaring right through all the red lights. Now I ask you, how could Louis and I compete with a gal like that?

Gradually things were beginning to get more organized. Every year there were more and more children's books, and more and more authors and illustrators on the road.

Something obviously had to be done—you could tell even way back then that there was going to be a children's book explosion—and an explosion of children's book authors and illustrators.

It was clear to everybody that in no time at all, there wouldn't be enough taxicabs in all Cleveland to haul the authors between schools for their twenty-minute speeches!

Then this woman—head of the PTA she was, or maybe it was the Junior League—invented something called a *book fair*.

She really stole the idea from an old vaudeville man. He invented a building. It was a very unusual building, because, you see, the *building* went up and down, and all the *elevators* stood still!

The idea behind the book fair was just that simple; you bus the children back and forth and all the authors stay put! Cleveland's taxicab shortage was averted. Within a few years not only Cleveland, but Chicago, Milwaukee, even a city as far away as Honolulu, began having book fairs.

You'll have to hand it to those ladies of Cleveland. They sure could organize a book fair!

By eight-thirty in the morning we authors would be "staying put" and the busing would begin. The hall would fill, we would give our show, then somebody blew a whistle—or no, I think they sounded a gong. The little tykes started filing out the back door and onto buses, while a new batch was filing in the front. You see, they had been rehearsing with a stop watch. Why, do you know I could hardly light a cigarette and take a short puff before there was a new batch of kids, and we had to start another show.

(This was back in the days long before I started to peep, when I was a moderate-to-heavy smoker.)

At these book fairs, we generally worked in threesomes, with each of us having about eight minutes to make our pitch. As I remember, we did about five shows a day.

This particular year, in Milwaukee, as I recall, I was up there on the stage, teamed up with Louis Slobodkin and another of my colleagues. The lady in charge had her stop watch out and was kicking the gong; the next-to-last group of children for the day filed out the back as the new and last group filed in the front.

Louis starts off the show. The kids are restless because it's the end of a long day, not only for them, but for us too. But Louis is an old pro, and when he goes into his act the audience calms right down and is with him all the way.

Have you ever seen Louis operate? He pulls on these bright pink gloves (so he doesn't get his hands soiled while he draws). He's a very funny guy, and children always love every minute of his act.

It's my turn next, and with this age group I seldom have any trouble. If I can't hook them with a story or a picture, I can pull out my harmonica and lull them with that. I can always keep them from tearing the place apart, anyway.

After my stint, it was our fair-haired colleague's turn. This guy had absolutely no sense of humor, and if anyone asked you to describe his work you'd have to say "heavy!" He had a chalk-talk about a mountain, somewhere in the south seas. He started up one side to an altitude of two thousand feet, gave some statistics about temperature and flora and fauna; then continued up the mountain to six thousand feet; with pauses for temperatures, cubic inches of annual rainfall, how many tons of coffee grew there and other bits of lore sure to fascinate a six-year-old child at four o'clock in the afternoon. Things like how much coffee was exported, and how much was brewed at home.

The kids were beginning to squirm and fidget, and our friend hadn't even reached the top and started down the other side. Things were about to get out of hand. Even the lady with the stop watch looked worried.

Now, if you're feeling sorry for those

children, just think of Louis and me! . . . Those children had not even been all the way up one side of that mountain *once*, but Louis and I had already been up and down both sides of it *four times* that day!

It was really a state of emergency. Why, the kids were so restless they couldn't even hear the statistics!

Louis and I knew that something had to be done, and we looked at each other and nodded.

I saw the big black toe of Louis's shoe ease into position under a rung of the stool on which our friend had placed his box of crayons (the crayons were all flora- and fauna- and statistic-colored). Louis gave a little nudge, the stool tipped, and the crayons went all over the place!

Naturally, Louis and I both went into action to help our friend in this emergency, but with our help the easel tipped over and the side of the mountain slid right off onto the floor.

Louis had pulled on his pink gloves (so as not to soil his hands) and was picking up crayons; and I was straightening the easel and tripping over the stool.

The children were laughing like mad along with the "three live authors from New York." Well, laughing along with *two* authors, anyway. I won't try to describe the look on our friend's face, I'll just say that it was "heavy."

I helped him fish the side of the mountain out from under the piano where someone had kicked it, but we never did get down that last side, because time was running short, according to the stop watch, and because some of the crucial flora- and fauna- and statistic-colored crayons seemed to be missing.

The children and Louis and I thought it was a great way to end a book fair, and as the little ones were filing out to their buses I saw Louis (when he thought no one was looking) slip those crucial crayons back into the box.

You know, Louis and I were never again invited back to that place. I think the lady with the stop watch was suspicious of us.

Now please pardon me if I seem to flinch because suddenly I have that feeling!—the feeling that a lady buyer is about to grab me by the arm and drag me into a taxicab. I know my twenty minutes are about up, and I'll just have time to explain about this substitute speech.

When I first looked over the twenty-six pages of fine print in your preliminary program, I found that I was expected to deliver an *Address* (with a capital A), the final speech of your convention. I wrote an *Address* (with a capital A) but when I read it over yesterday there was only one word to describe it. It was *heavy!* The wrong mood for ending a book fair, and the wrong mood for ending a convention of the International Reading Association.

So here I am with another undelivered speech (a heavy one, at that) to carry home and add to my drawerfull of undelivered speeches, right next to my drawerful of unpublished books.

In closing, I would like to thank you for inviting me to speak to you, and for your warm response to my substitute speech. For me, it has been a great pleasure "peeping" to you, and sharing with you these reminiscences of being on the road for children's books in the early years of this last quarter-century.

SEQUENCES

DEVELOPMENTAL READING

A. PRIMARY LEVEL

1. Relating Reading Instruction to Children's Developmental Growth Patterns

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THE SPEECH of the young child is significantly related to his reading readiness. We can utilize our knowledge of the way this speech develops to improve our reading programs.

The child is born with considerable skill in the utilization of vowel sounds. He perfects this skill through functional play and adds consonants as he gains control of lip and tongue. This enables him to exercise more precise control and to retain sounds to convey meaning.

This developmental pattern suggests when and how we should teach the child consonant and vowel sounds. We should teach the vowels and add consonants to convey specific meanings. We should not isolate consonants from the vowels they shape. It is the relationship of vowel to consonant that is significant in reading.

In applying the developmental speech pattern to instruction in reading, we remember that speech and reading are not equivalent acts. In speech, the end product is saying something. In reading, it is hearing something. Many of our mistakes in utilizing our knowledge of speech development to improve reading instruction lie in our assumption that reading and speech are really one process. This has resulted in an over-emphasis upon reading aloud and a neglect of the important skill of listening and of mental rather than verbal symbol-sound imagery.

The child is engaged at this time in another learning situation that relates significantly to his achievement in reading. The child establishes a world of relationships outside himself through crawling and manipulating. Concepts of form and direction grow out of these experiences. The child's reading should be built upon these concepts of direction, form, time, and sequence. These learnings, and the physical involvement that goes into their development, are the foundation for the visual skills and for the relationships basic to reading comprehension.

The Spatial Relationships of Reading

Reading has its own unique requirements in spatial relationships. Words relate to the feel of speech, the placement of tongue in respect to teeth and lips, and the control or release of breath. Both reading and speech have a rhythm that relates to meaning.

The development of the patterns of speech is a total body function, involving the quality as well as the quantity of physical experiences a child has had in learning to walk, in establishing dominance, and in learning a multitude of physical relationships to himself and his body image. Reading is not merely generalizing on these early language experiences. It is probably best defined as a re-experiencing of language as it relates to visual symbols to produce auditory responses. Reading has direction, intent, meaning, and the goals of intercommunication, as do speech experiences. The support of physical ideation is just as important to reading as it is to speech. Symbols not responded to in speech are not remembered. In reading, symbols to which the child does not have a meaningful relationship will also be forgotten.

The young child's vocabulary in speech is determined by his needs, his experiences, and his successes in communication. He talked in response to things he knew, wanted, or was stimulated by. He literally wrapped his tongue around his world to explore it. He must, to succeed in reading, wrap his mental tongue around an inner world of sound and must accept the requirements to explore beyond direct experience. To do this, he needs to feel he has the hand of familiar experience to guide him. He must learn to read through channels already established, but this time it must be by listening rather than saying.

Basis for Applying Developmental Patterns to Reading

There is much to be learned about applying our knowledge of the developmental patterns of speech to instruction in reading. But many things that can enrich and improve our reading programs and form the basis for important guidelines in evaluating the many proposals for new designs in reading programs are known.

We have enough information to know that auditory, motor, and visual discrimination experiences presented in many reading programs pre-suppose sub-skills that cannot be taken for granted. Visual and auditory discriminations are the end results of the process of language development and can be no more useful than the strength of the sub-skills that support them. They must be developed under the wisest guidance.

To make the necessary discriminations in reading, the child requires a rich background of varied experiences in establishing the relationship of sound to the letters that symbolize it. A word is a word, not because it is made up of letters, but because these letters relate to each other in a specific sequence of time and space.

Planning a Reading Program Based on Child Growth Patterns

Hypothesizing that we will plan a program in reading that builds upon the developmental growth patterns of the child, we will include many opportunities to manipulate and explore with little imposition of structure. We will consider the physical skills the child has already developed. We will utilize prior learnings in familiar patterns in introducing new skills. We will work for a program that will be personally satisfying to the child and will move at the pace most suitable for him.

Use of the Names of Vowels to Establish Directionality

As in speech, we will start with the vowels, but with the long sounds to enhance the motor memory, since the reading experience will be a listening, rather than a saying, one. Establish direction for the child by using the classroom environment. The window may be the beginning of a word, the door the ending, and the child's nose the middle. Have him show with his writing hand only, where the "a" is in "ate". It is the first thing one hears, and so is on the window side. Have him swing his right arm all the way across his body (if right handed) with his elbow straight so that he will get the feeling of direction. Continue in this way with other words such as "taste, play." Let all work be auditory. The child is to listen and show. The hands are a primary tool for training the eyes and directionality is established in this way much more effectively than with a question-answer, or visual experience.

Supporting Directional Skills with Writing

While the child is learning to locate vowel sounds in words spoken, support can be given with writing activities. These writing experiences may be free writing of a story the child plans, writing teacher-dictated responses, and formal training in learning to write the letters.

In self-initiated writing, the child first draws a picture to illustrate his story. The picture is highly significant, for it represents the child's efforts to pattern ideas to show a relationship. Later, he will substitute an outline for this picture.

The child's first stories are "scribbled," moving from left to right. He should be allowed great freedom of choice in these stories. As he gains facility in expressing himself, he may be introduced to common forms of punctuation such as a period, a question mark, or a "capital scribble" for the starting of the story.

After the child completes the writing of his story, time should be provided for him to read it aloud. This establishes the relationship of writing to "talk on paper." It gives the child an opportunity to "hear" what he has written and to edit it. It establishes the idea that these marks on paper are for the purpose of preserving talk to be heard. These concepts are basic to reading.

Utilizing Body Imagery in Reading Instruction

Early experiences in reading should be mainly auditory and should be supported with much body imagery. In teaching the letter names, let the child "show" or "be" a letter. The letters "b" and "d" may look alike, but they do not feel alike when one is acting them out.

Use body imagery in teaching the location of long vowels in words heard. Have two or three children show, by standing together, where the letters in a word are located. Have them stand close to the chalkboard while the teacher writes above their heads the letters they represent.

Have the child form with his hands the shape of a vowel he hears in a word the teacher pronounces. Let him show the number of things he hears in a word. When he is ready for open syllables, introduce this by having him show where he hears an "e" in the letter "b." Dictate words and have the child write the first two letters he hears in such words as "bite" and "baby."

Short vowel sounds may be taught in the same way. Give further support to short vowels by having the child carry out the directions: "Stand on the chair. Sit in the chair. Get under the chair. Stand at the chair. Sit on the edge of the chair." Secondly, give only the action words: "in, on, under, at, edge." Next, use only the short sound of the vowel, and shape it with your hands as you say it. Finally, use the hand signal only and have the child "hear" the sound mentally and carry out the desired action.

The teaching of syllabication can be supported with body imagery. Write "be" on the chalkboard while you say it. Write "eb" while you say it. Continue in this way with several letters, giving both the long and short sound of the vowel. Then have the child show with his writing hand, where the vowel is in "be-eb," "se-es," and other such combinations. Let him feel the leftness of short vowel sounds and the rightness of long sounds. Take nonsense words such as "fatelasif." Have the child put a finger under "a" and a finger under "e." Help him see that the one letter between the vowels goes right, which is the "long vowel side." In the next syllable, there are two letters between the vowels. One comes back "to the left," or short vowel sound, side. Do not mark off the syllables. The child will be able to see them *in* the word, which is where they belong in reading.

Teaching the Use of Context Clues

Start working with context clues with the very first vowel the child learns to write. Have him write words as you pronounce them, using the vowel and a scribble (Ohio is written o . . . o). As he write consonants, add them to the words written (bike is written bi . . .). Write on the chalkboard the syllables "ba, bi, bo, be, bu". Use sentences spoken, and have the child select the syllable that starts a word. "I will give my brother a present. I will give him a . . . ?". In this way the child will use context for meaning from the very beginning of his reading instruction.

When the child has advanced to the point in his skills development at which he is reading polysyllabic words with ease, the teacher may use sentences in which one word is a "nonsense" word. An example is, "The bear anskered into the forest." Have the children give words that could take the place of the "nonsense" word. Accept any offering they suggest. Finally, have them choose various words from their list to convey a specific meaning. A frightened bear *fled*. A lazy bear *ambled*.

In all these skills lessons, use much body imagery to enable the child to feel as well as hear and see the language of print. With his first experiences with letters, the child could use words for a target in space and he was ready to explore visual sound and to comprehend the experiences of others in print. Talk would now be "ear-bridged" into a visual experience with printed symbols.

2. Why an Eclectic Approach in Reading Instruction?

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ECLECTICISM IS GENERALLY defined as "the selection and orderly combination of compatible features from diverse sources," the combination of valid elements from various theories into an harmonious whole. It is definitely not syncretism nor an unsystematic and uncritical combination of data. Unfortunately, even the most charitable evaluation of the actual situation in the teaching of reading forces us to conclude that few teachers have arrived at such a synthesis. Few teachers can honestly say that the approach which they are using is a systematic and orderly synthesis of data from various theories. And yet, eclecticism of some kind seems necessary.

We thus propose an eclecticism for the teacher that encourages him to select from the great variety of approaches that one approach, or combination of approaches, which best meets the needs of the pupil. We propose that the selection of method should be based on the individual differences of the learners. Perhaps, instead of the word *eclecticism,* we should borrow the phrase of Elizabeth Vasquez, a principal at Homestead School in Garden City, New York. She speaks an "All-Method Method" of teaching reading.

The Rationale for Eclecticism

We believe eclecticism makes sense because:

1. Children do in fact learn to read through a variety of approaches.
2. Children are different.
3. Teachers are different.

Let's look at each of these.

As one scans the literature, listens to experts in the field, or observes practices in the classroom, he is dazzled by the bewildering array of methods of teaching reading. Each method is proposed as an answer to a reading problem; perhaps not *the* answer, but nevertheless an answer. There is not one advocate of a method who submits that his or her method does not work or who is unable to adduce evidence as to its effectiveness. And the fact is that children have become readers, indeed good readers, through analytic, synthetic, or combination approaches.

Thus, unless one is willing to call every researcher or practitioner who claims to have success with a given method a cheat, one has to accept that success may come by many paths. Since many different roads can and do eventually lead to reading proficiency, we are unwilling to accept that only one method, one approach, or one technique is successful with all children. We cannot agree with Terman and Walcutt that with their method all children learn to read. We cannot agree with Delacato that only his method is without its poor readers. We cannot agree with Sullivan that his programed learning approach will eliminate all reading failures. We simply do not have sufficient evidence in support of one approach that warrants universal allegiance to it as the supposedly best or only way of teaching reading. On the other hand, we must admit that Terman and Walcutt's, Delacato's, and Sullivan's methods have worked with some children.

A second argument for eclecticism is the fact that children are different and learn differently. It seems unwise therefore to standardize or communize reading method. If children were all alike, we might look for the method. Indeed, we would have found it long ago. But, the simple fact is that children are different from one another intellectually, physically, emotionally, socially, and perceptually, and they seem to be differentiated on the basis of the method that is beneficial to them.

We have gone through a period in which there has been frequent debate over phonics. Today, this debate has generally subsided, and the reason for this is that we have come to accept the fact that children react differently perceptually. Each child reacts to a "perceptual whole," but for some the perceptual whole is a word; for others, a part of the word. The whole child reacts, but he is not necessarily best stimulated holistically. What constitutes a whole is different from individual to individual and is determined by the meaningfulness of that unit and the ability, experiences, purposes, maturation, and perceptual skill of the learner.

The really successful teacher is one who has developed an extraordinary sensitivity to the differences among children in the classroom and makes adjustments for them.

Teacher differences are a third reason for eclecticism. The teacher's preferred mode of reaction may be as significant as the method of teaching that he is using. Two equally competent teachers may not be able to use the same method with equal effectiveness. It may be as significant in the education of future teachers (and in your own personal success in teaching) that you and prospective teachers develop competency in method in line with your own natural style of responding and communicating. Some one of you, because of your personal make-up may do a beautiful job with individualized reading; others, because of their personal characteristics, may almost be doomed to failure.

The teacher does make a difference. On the days when we don't feel well students often seem to be doing the poorest, are ill-mannered, and the least cooperative. They seem the smartest on the days when we feel best. Of course, on those days we feel that the world is lucky to have us in it and that our method is the best there is.

Consequences of Eclecticism

What does the acceptance af eclecticism imply? It implies, among other things:

1. That the teacher understands the differences in children;
2. That the teacher become familiar with a host of reading methods.

Knowing the Pupil

The effectiveness of the teacher with a given method depends to a great degree on his understanding of the pupil. This differential in knowledge of the learner quite frequently accounts for the fact that one teacher is successful with a given method and another teacher fails with it. A method of teaching is adequate only if the teacher knows enough about the child so that he can adapt the method to the needs of a specific child. In addition to an understanding of the pupil's maturational, experiential, intellectual, neural, physical, social, emotional, motivational, language, and sensory characteristics, knowing the pupil means knowing his preferred mode of learning. Identification of the child's mode of learning may well be the end goal of all classroom diagnosis.

The Pupil's Mode of Learning

As early as 1860, Fechner noted differences in imagery. In the 1880's Calton found that scientific men have feeble powers of visual representation. In 1886 Binet described an auditory type and a motor, or kinesthetic type. He noted that the latter remember a "drawing better when they have followed the outlines with their finger." William James noted of himself that he was a poor visualizer and that he seldom could call to mind even a single letter of the alphabet in purely retinal terms. He noted that he must trace the letter by running his mental eye over its contour.

Children likewise differ in auditory, visual, and motor imagery. Some children simply cannot rely on a visual image; others rarely depend on auditory imagery. When the latter read a word, they may see the word; the former hear the word; and those with motor imagery feel the word. They recognize the word as one they traced previously.

Furthermore, the maturational pattern for each of those sensory modalities may fluctuate from one to another. A pupil may develop slowly in one, more rapidly in another. Others mature slowly in all despite good intellectual ability.

Research tends to indicate that a person's preferred mode may be determined culturally, experimentally, or constitutionally. Frank Riesman, in the *Culturally Deprived Child*, suggests that the culturally-deprived child is physically oriented and learns better through aural learning. Walters and Kosowski[1] have found that difficulties in symbolic learning may be a function of reduced inability to attend to visual stimuli resulting from monotonous stimuli. There is evidence also that continued use of one modality for learning may make the use of other modalities of limited value.

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[1] Richard L. Walters and Irene Kosowski, "Symbolic Learning and Reading Retardation," *Journal of Consulting Psychology*, 27 (February 1963), 75-82.

Preschool children can learn to recognize geometric shapes much more readily if they feel the cutout forms. Young children learn to deal with the environment by "saying what they think," and we have found that progress in spelling is aided by saying the word to oneself. Slow learners tend to learn best through kinesthetic approaches; brilliant youngsters, through visual approaches. Listening is generally preferred over reading as a medium for learning up to about the fifth grade.

Wepman[2] notes that auditory training to correct articulatory inaccuracies is not too useful until auditory discriminatory abilities have matured. This occurs sometime after the age of eight. He thus recommends that we emphasize in early learning experiences the modality that is preferred while training the underdeveloped or impaired pathway separately.

He adds that intermodal transfer is necessary in learning:

> Thus, a child who sees the printed word "dog" must evoke not only previous visual stimuli of printed forms but life forms as well; he must shift from the visual input to previously received and stored auditory patterns making up the word "dog" and perhaps to the tactile sensations of petting a dog, of his small and even his frisky movements, before the printed word has full meaning for him. Without this shift to other modal learning, little integrative meaning may be attached to the printed word. Intermodal transfer, then, seems to be vital to the learning act. Katz and Deutsch,[3] in an extensive study of good and poor readers on a variety of perceptual tasks, concluded in part that "poor reading is associated with difficulties in shifting from one sensory mode to another (p. 30).

Since everyone is truly a unique learner, it seems reasonable to introduce materials through the pupil's stronger sense modality. It would seem reasonable to utilize instructional materials which are congruent with each learner's particular strengths in perception, imagery, and recall.

The pupil's preferred sensory mode of learning may be identified by using the Mill's *Learning Methods Test.* The Learning Rate Test of the *Durrell Analysis of Reading Difficulty* might be used to identify the child who will profit from a visual emphasis. Other recent tests with possibilities in this area are the *Frostig Developmental Test of Visual Perception,* the *Illinois Test of Psycholinguistic Abilities,* the *Chicago Test of Visual Discrimination,* the *Roswell-Chall Auditory Blending Test,* and the *Wepman Auditory Discrimination Test.*

We all realize that, other things in the educational situation being equal, the child must have reached a more advanced developmental stage to succeed in reading in a class of 36 pupils than in a class of 12 or 13 pupils. He will need greater maturity. The same might be said of reading method. A child might not be ready for reading—he might not be mature enough—because we are asking him to use a sensory modality which is less developed than another. Some children are more ready to learn through a phonic approach; and still others through a visual approach; and still others through a kinesthetic approach. The fact that children have different sensory strengths suggests that one-method teaching is questionable. We need to identify the child's differential ability to learn by ear, eye, or touch before choosing a given reading method to use with him.

Knowledge of a Variety of Methods

A second major consequence of accepting a position of eclecticism is a need to become familiar with a great variety of methods of teaching reading.

The teacher needs to ask himself: What method works best with Jane, who has completed the readiness program, but still cannot identify rhyming words? What method works best with Dick, who has an abnormal amount of difficulty with similar-appearing words such as *them* and *then*? What method works best with the pupil who does word-by-word reading, who constantly back-tracks, or who blocks when he meets certain words? What method works best with the pupil who constantly reverses words, who cannot blend sounds or letters, or who cannot name letters?

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[2] Joseph M. Wepman, "The Perceptual Basis for Learning," *Meeting Individual Differences in Reading.* Ed. by H. Alan Robinson, Chicago: University of Chicago Press, 1964, 25-33.

[3] Phyllis Katz and Martin Deutsch, Visual and Auditory Efficiency and Its Relationship to Reading in Children. Cooperative Research Project No. 1099 Washington, D. C.: Office of Education, 1963, 45.

These are not serious problems, but these innocuous difficulties tend to snowball. Most remedial cases are probably instances of an accumulation of unmet reading needs. The teacher of reading needs to be able to provide proper remediation all along the way. This means he needs to know what is best for a given child. It is not enough to know *a* method of teaching. It is necessary to know *the* method that is best for a *given* child. This means he must become familiar with a host of methods.

Teachers with the most novel approaches to teaching reading claim to be unusually successful with their method. It may be, and indeed often is, that these teachers work harder or are more enthusiastic than the average teacher. But, it may also be true that a novel approach may be especially effective with some child because it meets his need in a special way. There are methods, or specific teaching approaches, that make a world of difference for the *individual* child. One child benefits from one type of instruction, another may not.

There probably is some good in every approach. I don't know of any method that may not be useful with *some* child. The Initial Teaching Alphabet (i|t|a) approach, originated by Pitman, has already demonstrated its usefulness by simplifying the alphabet. It is interesting to note that systems similar to the i|t|a began as early as 1551, and by 1845 there were 26 phonetic alphabets, including those of Benjamin Franklin and Brigham Young. Davis' system, as propounded in *k-a-t speltz cat*, the Diacritical Marking System of Fry, and Gattegno's Color approach may each help some child to learn and remember better.

A child who has difficulty associating meaning with what is read may be especially helped by a linguistic approach such as Lefevre's.[4] It may help the reader to translate the printed text into the writer's intonation pattern. Another child may be aided by linguistic approaches such as those proposed by Bloomfield, Soffietti, Daniels and Diack, or Fries, which stress the phonetic consistencies of the language.

The teaching machine approach, originally proposed by Pressey, and programed learning approaches in general, may help a child who has special need for a detailed, sequential presentation of learning tasks and a need for confirmation of his progress.

Another child, who has a special need to be interested in what he is reading, may learn best through the language-experience approach, originally suggested some sixty years ago by Flora F. Fooke at the Chicago Institute.

Some children may not learn readily because certain internal events have gone awry. We cannot emphasize enough that learning, and indeed reading, occurs in the brain. Children think and learn differently because of differences in neural development.

Reading difficulties are thus said to be caused by damage to, or dysfunction of, certain localized areas of the brain such as the angular gyrus (Hinshelwood, 1917), the frontal gyrus (Wernike, 1947), or the parietal and parietal-occipital areas (*Rabinovich*, 1959). Penfield and Roberts (1959) suggest that the difficulty is in the connection between the cortical speech mechanism and the brain stem system. Some suggested that reading deficiency results from underdevelopment of directional function (Hermann, 1959) from psychological distrubances, especially of an unconscious or subconscious nature (Jarvis, 1958, Namnum and Prelinger, 1961, Walters, Van Loan and Crofts, 1961), from disturbed brain wave activity (Kennard, Rabinovitch, and Wexler, 1952), from prenatal and paranatal factors (Kawi and Psasmanich, 1959) from ocular inefficiency (Leton, 1962), from delayed development of the parietal lobes (Drew, 1956), from a slowness of neuromuscular maturation (Eustis, 1947), or from minimal brain injury (Strauss and Lehtinen, 1947). The Smith's Synaptic Transmission Model suggests a chemical basis for reading deficiency, and Delacato, following the early lead of Orton, emphasizes dominance factors.

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[4] Carl A. Lefevre, "A Comprehensive Linguistic Approach to Reading." *Elementary English*, 42 (October 1965), 651-659.

Each of these people suggests that neurological factors are key factors in language and reading development. Delacato notes that the basic difference between man and the animal world is that man has achieved cortical dominance rather than cellular quantity. He probably summarizes the thinking of this group of specialists when he notes that "peripheral activity . . . such as vision, dexterity, skills, *phonetics, various reading techniques,* are meaningless in remediation if the neurological organization is defective."

Summary

When the teacher accepts the student, when he respects the individuality of the pupil, shows understanding and empathy, has deep faith in the improvableness of the pupil, and identifies the pupil's area of confidence, we find that his pupils are generally successful. We also know what a great effect a teacher can have if he is an interested and an interesting teacher. Because learning occurs in a relationship, the teacher's personality and his ability to enlist the child's active cooperation are often more important than the specific method used.

We propose that another key attitude of the successful teacher is a willingness to change his method to fit the learner's preferred mode of learning. Success in teaching is built on a willingness to be eclectic. We don't give much credence to a physician who seeks to alleviate all ailments with aspirin. Is the aspirin man less scientific than the one-method teacher?

Eclecticism is not easy, but I don't think that we can return to the "good old days," when we were content to dish out the same thing to all children. The greatest challenge in education today is the individualization of instruction. There is nothing quite so unequal as dishing out the same education to unequals. We need to personalize education. We need to be eclectic in the true sense of the word.

B. UPPER ELEMENTARY LEVEL

1. Improvement of Reading through Instruction in Listening

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IN THE LITERATURE on listening and reading one can find results which indicate that pupils learn and remember more through listening than they do through reading during the elementary grade years. In addition, it has been found that listening ability can be improved through practice. Studies have also shown that when direct attention and practice is given in listening for certain purposes improved reading for those purposes also results.

Comparison of Listening and Reading

There are similarities and differences in both modes of communication. The major difference is the sensory modality through which comprehension occurs. The ear is the sensory channel through which interpretation of the spoken word or words is possible; the eye the channel through which written material is interpreted. Another difference is in the situation: in listening there is a social, or audience, aspect in which more than one person is involved; reading is a solitary occupation.

Common elements are involved in both listening and reading. Both are aspects of communication. Both involve meaningful associations with oral or graphic symbols and interpretation of word units in context of larger units. Discriminating of words; vocabulary and concepts; ability to concentrate on the task at hand; experience with language; purposes, either for information or enjoyment; anticipation of meaning; imagery; mental reorganization of ideas gained; thinking with words — these are similar behaviors whether one reads or one listens.

Listening, like reading, has many levels ranging from the perception of the word heard or seen, to literal comprehension, fusion of ideas and, thence, to critical reaction or creative endeavors. One cannot always be certain to which level others are referring when they say "listening" or "reading" since both involve skills all the way from the mechanical aspects of word recognition (process) to information or enjoyment (products).

Many textbooks and curriculum guides list separately the reading and listening skills to be developed, but few interrelate them in such a way that the teaching of one may enhance the other. It would seem much more profitable to focus attention on the skills that are common to both, and to provide practice in teaching the two concurrently. If direct practice in listening can improve reading in the intermediate grades, certainly a planned program in teaching skills common to both, beginning with listening and followed by practice in the same skill in reading, would have merit.

Pratt and Green have listed the following listening skills:

I. WORD PERCEPTION
  A. Recall of word meanings
  B. Deduction of meanings of unknown words
II. COMPREHENSION OF IDEAS
  A. Noting details
  B. Following directions
  C. Organizing into main and subordinate ideas
  D. Selecting information pertinent to a specific topic
  E. Detecting clues that show the speaker's trend of thought
III. USING IDEAS TO BUILD UNDERSTANDINGS
  A. Evaluating an expressed point of view or fact in relation to previous learning
  B. Making justifiable inferences

I believe we would all agree that these skills are also the skills with which we are concerned in the teaching of reading. I would, however, add another to their list under "word perception" and that is discrimination—or the ability to differentiate likenesses and differences in words. I would further add another category having to do with listening for enjoyment to a story or poem well told or read, because interest in reading for oneself can be developed through listening to content that gives personal satisfaction.

Preparation for Listening

We are all cognizant of the fact that some pupils are poor listeners. This may be due to several reasons. Among them are: the teacher himself; the purposes for listening are not made clear; physical factors which distract; and health factors which prevent the pupil from giving attention. One important task of the teacher is to create and maintain a "listening climate" since concentration on the task at hand is an important requisite to both listening and reading. Simple standards developed with the pupils should aid in the improvement of concentration in both communication aspects.

Activities for Listening and Reading Improvement

There are several ways a teacher can provide practice in sounds listened to and sounds read, either to large groups, to small groups or to individuals. One means is through using the tape recorder in programing a lesson, and having the pupils listen through earphones in order not to disturb those working at other tasks. This should insure active participation of each pupil. Word perception exercises in listening and reading might involve listening first to consonant blends or digraphs with which pupils have been having difficulty, then practice in using these blends in analyzing words in reading.

The pupils might listen to the beginning blend of *scrape*, *scratch*, and *scrimp*, paying close attention to the sound of the three letters. This would be followed by practice in pronouncing words and reading sentences which contain these elements. Then they might listen for another blend, such as words that begin like *stray*, *straight*, *stream*, and follow the same procedure. After these two elements have been listened to and read both in isolation and in context, a lesson might follow on discriminating between the two both auditorily and visually.

For example, a teacher-taped lesson might proceed in this manner: "You have a worksheet with some words and sentences. You are going to listen for the beginning sounds of the words. Ready? *Stray, stream, stretch, strength, straight.* Did you hear the beginning sound of the words? What letter combination do you use for this sound?" Pause for response.

"If you said 'str' you are correct because all of the words began with 'str.' Listen again, but this time use your word list. After I pronounce each word, move down to the next word so that you are looking at each word as I say it." After auditory and visual presentation of the isolated words, the pupils are asked to find the first sentence, to listen to the sentence, "The road runs up and down hill, and around the mountainside so it is not straight," and be able to underline the correct form of the word *straight*. The pupils must choose between the three visual presentations *staight, straight, sraight*. Other sentences such as this, or short stories, could follow to give the pupils practice in visual scrutiny of words, and matching sight with sound.

Vowel sounds are particularly troublesome to some pupils. Listening for certain vowel sounds, then immediately applying the same kind of practice to analyzing monosyllable words, followed by multisyllable words both in isolation and in context, should be beneficial. The teacher might program the teaching of a vowel element as follows:

Listening to sentences and stories and supplying missing words is a means of using context for clues to word perception. Such an exercise might include several sentences read by the teacher, another pupil, or on tape recorder with a word omitted as pupils listen and supply the missing word. The teacher or a pupil might list the words supplied on the board and the pupils then have a worksheet of the same sentences to read and fill in the correct word. The sentences could be in the same order or in scrambled order, depending upon the reading ability of the pupils. This could be followed by new sentences or paragraphs or short stories with words omitted and pupils choosing from a list of words the one which fits best the meaning, first through listening then through reading. Variations of this are the use of synonyms or antonyms for certain designated words in the sentence or paragraph.

In listening for information as well as reading for information, pupils are aided by having clear purposes set. This also aids concentration and retention of information. They might listen for the sequence of a story, be asked to enumerate what happened first, second, third, and so on, then be presented with the story in scrambled order to read and arrange the way the story happened. Another variation is to listen to a paragraph and decide from a list of titles which best fits as the main idea. Then, they might read the paragraph to check themselves on whether they chose correctly from listening, or were better able to choose after having listened and then read the material. Discussion could follow as to whether a pupil stayed with his title—or main idea—or whether and why he did or didn't change.

We are all aware of the fact that not all pupils in the intermediate grades are able to read the subject-matter texts with facility. Here, too, listening could better prepare pupils for reading—not by having the better readers take turns in reading the material aloud but by involving each member of the class in listening for a specific purpose.

Suppose that you are preparing to teach location on maps and globes in social studies. Specific terms to be mastered are latitude and longitude. After discussion of the meanings of parallel, meridian, latitude, and longitude, the pupils might be asked to listen to a paragraph for the purpose of deciding if it adequately defined "latitude." Or they might be asked to listen for the specific term that measured distance, or to determine whether latitude was described as north and south of the equator or east and west of the prime meridian.

The pupils could then read a paragraph, following the same lines as the paragraph used for listening for information, but paraphrased, and select sentences that explain or define latitude and longitude. Discussion might include pronunciation, writing words on the board, syllabicating the words, discussing rules of syllabication (whether the words follow the rule or deviate from it; whether open or closed syllables are present, and which vowel sounds are used in pronunciation of words). Explanations and discussion of meanings through use of globes could be followed by sentences or paragraphs that call for social studies meanings and dictionary or glossary practice in choosing the correct definition for the way the word is used.

Following vocabulary study, pupils read the text for certain purposes: either to find out *what* happened, *where* it happened, *how* or *why* or *who* it happened to. If it is not possible for the teacher to get easier material on the subject under study for those pupils for whom word recognition is a problem, he might have pupil teams with one reading and one listening in turn, then together writing the information dealt within outline form. The outlines could then be used as a guide, and the more able student could aid the less able student in writing his own text to read.

Another product of both listening and reading is enjoyment or pleasure in a story or poem. Interest in reading for oneself can be developed through listening to entertaining, humorous, adventureous, or mysterious stories. Tall tales are especially liked by most pupils in the intermediate grades. Have one book or story and let pupils take turns reading aloud while the others listen, passing the book from pupil to pupil. This should be a story either unfamiliar to them or a well loved "repeater" they like to hear over and over. Have the pupils listen for exaggerations; listen for pictures they "saw" to promote visual and auditory imagery; and listen for colorful descriptive terminology. A variation of this is stopping before the climax of a story and asking the pupils to tell their own versions of the ending, then comparing the various endings with the original story. Some pupils might want to write their endings. These could be put in folders, illustrated, and made available so that the pupils could read each others' endings. Deciding which ending they liked best, and why, might make for some provocative discussions.

Materials for use in listening can be adapted for use in reading. The reverse process can operate as well. We have already mentioned the possibilities of the tape recorder in teaching word perception; it also has its uses in listening to stories for various purposes. The Language Master (Bell and Howell) is also a useful instrument for combining listening and reading in word perception. The SRA Reading Laboratories have materials for listening and reading; power builders and rate builders can also be adapted for listening. Textbooks, workbooks, and library books can also be used in devising listening activities prior to reading. Source material for the teacher is included in the bibliography of this article (2) (3) (4) (5).

Obviously, we could not discuss all the possibilities for relating the common elements of listening and reading in the short space of this paper. We have, however, suggested, through examples, some ways the teacher can interrelate these two modes of communication. It seems more profitable to teach the two concurrently rather than to teach them separately and depend upon the pupils to recognize when and how their listening skills can be applied to their reading skills.

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2. Progress in Developmental Reading for Today's Disadvantaged

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IN TODAY'S WORLD, the reading needs of the disadvantaged child have come to the foreground. The nationwide Project Head Start program, the increased number of Title I projects, the accelerated movement of the disadvantaged to urban centers, the drive by publishers to develop new reading materials, and the justifiable pressures from the disadvantaged themselves that they be taught to read—all these have demanded that educators and lay personnel pool their time, talent, and resources to develop a reading program that will meet the needs of today's disadvantaged.

Progress—definite progress—*is* being made in several basic areas in which tremendous needs exist. The progress made, however, represents only the "plug in the hole in the dike;" a long-range action program *must* be developed to insure steadier progress in meeting the needs of nonreaders both in and out of schools throughout our country.

What are benchmarks that indicate progress *is* being made in developmental reading for today's disadvantaged?

Understanding Children's Needs

The first benchmark is the fact that *much progress has been made in understanding the needs of the disadvantaged child* in relation to reading. At least three of these needs are becoming recognized.

(1) It is necessary that the child have confidence in his ability to learn to read. It is clear that teachers, parents, and the disadvantaged child himself must recognize that the child *can* learn to read and—given instruction suitable to his needs—*will* learn to read as well as his more advantaged classmates. The progress in reading being made by disadvantaged children who *do* develop confidence in the worth of their own ability testifies to the importance of a positive self-image. Creating and extending a positive self-image is now recognized as a component of the process of teaching reading. Giving the Negro child, and others, specific instruction in the history and culture of their ethnic backgrounds is an example of a way of brightening their self-image and thereby increasing the likelihood of their progress in reading.

(2) It is necessary that we recognize the factors, the handicaps, that have been responsible for curtailing progress in reading by the disadvantaged. For example, we must recognize and act upon the lack of auditory perception among the disadvantaged. The child coming from a disadvantaged home is not familiar with the sound and structure of formal English; he does not recognize the sounds, the accents, the language patterns. Both the Puerto Rican and the Negro child have difficulty with the rhythm of English; it is much too fast for these learners; they hear only an unperceived mass of sounds.

Another factor we must recognize and act upon is the weakness in the disadvantaged child's experiential background. He lacks the ability to recognize English words and language patterns as symbols or sound-pictures of things and ideas. Because of his weakness in experiential background, we now know that he has difficulty in understanding the language of textbooks and of his teacher.

(3) It is necessary that there be an extended, sequential developmental program in which corrective-clinical services are an integer.

This need implies that reading must, for the disadvantaged child, be taught throughout his entire school life, prekindergarten through grade 12, with a carefully planned network of services to meet the needs not only of the in-school child but also of out-of-school poor readers and non-readers. The needs of this latter group should and can be met through the establishment of a network of reading centers in libraries, schools, community centers—even vacant stores, if necessary—under the supervision of expert teachers of reading.

This need for comprehensiveness implies also that all special reading services, whether for the advanced or the retarded reader, must be regarded as a basic part of the developmental reading program.

This need for a long-span system implies, in addition, that a sequential skill program for the full gambit from prekindergarten to grade 12 must be carefully developed. In New York City, the schools recognize this aspect and are revising our skill-development program, for publication next fall.

So our first benchmark of progress is the feeling that we are beginning at last to define the problem in terms of the child's need for a positive self-image, in terms of the handicapping factors, and in terms of the long-range service-aligned reading design.

No Single "Open Sesame!"

The second benchmark of progress is the growing recognition that *no single reading approach, no lone combination of approaches will guarantee that the disadvantaged child will learn to read.* His needs are not met by a formula that fits all his brethren.

Rather, the classroom teacher must become master of all approaches and master of all procedures that will enable her to analyze the child's needs and to prescribe the approach best suited to his present needs. The classroom teacher must know that needs change as they are remedied or met, and therefore the reading approach must change, too. Today a child may benefit from an audio-lingual approach; tomorrow, from a language-experience approach; next week, from a basal-reader approach; and next month, from an individualized-reading approach or from a unique combination of approaches.

This benchmark asks much of the classroom teacher, for she is not likely to be master of all these matters. In a pilot study with teachers of disadvantaged children who were beginning readers, Albert J. Harris found that the teachers *thought* that the children made better progress the initial months of the school year by using basal readers than they did by using the language-experience approach; by the close of the year, however, they found that children with whom they *did* use the language-experience approach were gaining faster than did the basal-reader children. Teachers will need much help in fulfilling the responsibility that we have come to recognize: the need for varying approaches to fit the circumstances of children's learning needs.

The ability to bring together the right reading approach and the right child requires superior skill in the teaching of reading. It also requires recognition of the fact that learning to read is a highly individualized matter: instruction of a class as one reading group in day-to-day practice has no place in today's program for teaching the disadvantaged to read.

No Magic Elixir

Our third benchmark of progress grows from the second. Just as there is no single approach for teaching reading to the disadvantaged, so is there *no single type of material whose use will insure the reading progress of the disadvantaged.* But there are basic characteristics that materials used successfully with the disadvantaged must possess:

(1) The materials must be based on experiences to which the disadvantaged child can relate. The Bank Street Readers, the revisions of popular basal series, and new supplementary materials are moving in this direction. Much more needs to be done, however, to develop materials for use by pupils at all grade levels (and especially at the intermediate and upper grades), based on children's experiences. Commercial use should be made of the experience charts developed by capable teachers as they work with the disadvantaged. Harris' pilot study, to which I referred, underscored the advantages of using language-experience charts as a basis for beginning reading for the disadvantaged.

(2) Materials for the disadvantaged should have an audio-visual emphasis. Pilot studies, such as one being financed by Astor funds in ten elementary schools in disadvantaged areas in New York City, show the value of stress on audio-visual aspects. All the work done to date by Martin Deutsch with the disadvantaged further confirms the need for intensive audio-visual work as a basis for beginning formal reading.

(3) Materials for the disadvantaged should involve the learner in their use so that he gains a feeling of responsibility for his own reading progress. Materials such as the SRA kits, the Reader's Digest skill texts, Macmillan's skill builders, as well as the programed materials in reading skills being developed by the New York City school system for the use of the disadvantaged, use the basic idea of involving the learner in the responsibility for progress. There is well-defined need for materials that include (a) a simple inventory test to determine reading-skill needs; (b) material a pupil can use, to a large extent independently, to meet these needs; and (c) a simple method by which the child can keep a proud record of his own reading progress.

Training, Then Retraining

A fourth benchmark in our progress in developmental reading has been *the* *universal recognition of a need for a new, extensive, imaginative program of preservice and in-service training and retraining for both teachers and supervisors.*

That program should not focus on reading instruction alone, as though it could be isolated into a tight specialization. As John B. King, executive deputy superintendent of the New York City schools, pointed out in a recent address, the training and retraining should concern itself not only with reading *per se* but also with "urban anthropology, linguistics, psychology and pedagogy of teaching English as a second or third language. . . . The various NDEA institutes and fellowship programs should be expanded as rapidly as state, federal, and foundation funds can be made available."

As we expand these programs, however, we must make certain that their caliber of instruction remains high. As one who had the privilege of evaluating several NDEA institutes, I should like to stress that it cannot be emphasized too often or too loudly that such institutes *must* be tailored to prepare teachers for working with today's *dis*advantaged children. The content of the institutes, the approaches suggested, the methods demonstrated, the reading materials reviewed or suggested, should not be "old wine in new bottles" but new potions brewed to meet the complex reading needs of the countless thousands of disadvantaged children who pass through our schools—children who, in the words again of John King, "will find in reading mastery the prime means of breaking the poverty cycle and of acquiring economic, cultural, social, and personal fulfillment."

It is not enough for teachers and supervisors to learn more about reading instruction *in general;* they must learn more about—*all* about—reading instruction for the disadvantaged *in particular.*

There is evidence that big strides are being taken in this regard, quite beyond the institutes and workshops that have been mentioned. In our city alone we are using television, team teaching, films, the buddy system, creative programed instruction, expanded in-service increment courses, expanded preservice orientation of teacher trainees, and many other means of helping teachers learn to work with the reading problems of the disadvantaged. We are not alone in this battle; other cities are making similar assaults. Certainly all of us must make wider and more effective use of every type of preservice and in-service training and retraining that we can imagine. Much *is* being done in this regard—a benchmark of progress.

Squarer Evaluation

A fifth benchmark of our progress in teaching reading to today's disadvantaged children is *the nearly universal clamor for new tools of evaluation.* The hue and cry is for several new instruments:

(1) There is need for simple types of evalution in which the child can be involved and for which he can be responsible. This evaluation can concern itself with skills, materials, reactions to stories, and many other aspects of reading experience.

(2) There is need for easily-available materials for teachers to use in evaluating needs and points of progress, in relation to specific skills at various sequential levels.

(3) There is need for tools that teachers can use in their work with disadvantaged children at all levels to evaluate the children's ability in auditory and visual perception. *Much* more material, many more tools, are needed in this area, especially for older children.

(4) There is need for extensive revision of standardized reading tests so that teachers of the disadvantaged can gain more accurate and deeper insight into their pupils' reading progress and their status in terms of standardized norms.

The point here is not only that there is a need for squarer yardsticks but also that the need is recognized—and *that* is progress!

Community Oriented

A sixth benchmark of our progress is the general recognition that *a program to help the disadvantaged to read better must involve the parents.*

One of the exciting advances that we may attribute to Project Head Start is how much we have learned about the effectiveness of including parents, and indeed the whole community, in the children's "head start."

In the work done by Martin Deutsch with the parents of disadvantaged prekindergarten children in New York City—a project that was the forerunner of Project Head Start on a national level—he found that the effectiveness of the work with the children *was directly related* to the extent of parent involvement.

In New York City we have used many means to involve parents in our programs for helping our disadvantaged children, including special films on the learning-to-read process, brochures to guide parents in helping their children, reading exhibits to which parents are invited, and many pilot projects—our Astor study, for example — which include specifically planned roles for parents who are drawn into the projects.

We have only scratched the surface in regard to parent participation, of course; but it is a benchmark of progress to note that the scratch is deep and the interest in it is nearly universal.

Getting Somewhere

We cannot point to test scores as evidence of our progress in meeting the reading needs of the disadvantaged; for this juncture in educational history, America's Education is tooling up for this newly accepted responsibility and is still working with its pilot models. The assembly line is not yet in full gear. Indeed, the flood of in-migrants to the urban centers is so great that a school system may well congratulate itself in maintaining reading test scores on the plane that they have in recent years.

The evidence lies in the fact that education's responsibility to the disadvantaged *has been recognized and accepted*, the fact that education is directing its enormous talent to the solution of the problems involved in the responsibility. This is why I have been able to point so proudly to what education and educators have accomplished—

1. have come to understand the needs of these children;
2. have come to understand that there is no single formula of uniform application but rather a need for diversified approaches to reading instruction;
3. have ascertained that there is no single kind of material that will meet the needs of so many different kinds of handicapped learners;
4. have seen that the immediate key lies in training and retraining teachers (and have taken much action here);
5. have defined the need for new kinds of tools of measurement and evaluation;
6. have pinpointed the critical role of the parents of the disadvantaged.

True, we have only defined the dimensions of our problem and made brush contact—by pilot studies—with elements of the problem. But we have established principles, we are loading the guns. I believe that most of us now have a reasonable sense of direction in what we are doing.

True, the task ahead is greater than the task behind us; but the floodlights have been turned on and we can "see" what we are doing. And among the stirring things we are doing is buckling on the armor of determination and dedication. Our disadvantaged *are* going to master the basic requisite to their future success as American citizens—*they are going to learn to read!*

C. SECONDARY LEVEL

1. Meeting Reading Demands of the Content Subjects

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THE PHRASE "READING in the content area" tends to connote the isolation of the reading act into separate pigeon holes or categories. I should like to do away with this phrase and have you consider the act of reading in the content area as functional reading, *i.e.*, reading related to work-to-be-accomplished and to work-energy put into it. Functional reading is reading-to-learn or to earn (if you will), as contrasted with pleasure reading which might indicate more of a satisfaction of human yearning.

It seems to me that we cannot divide types of reading into categories because "types" of reading must necessarily overlap and integrate. The mature, effective reader has developed automatic shift control of flexibility and is able to bring to smooth availability all of his skills in every reading task.

The construct of reading is in no sense simple, hence it would seem indicative to discuss the skills often met in the fields of natural sciences, mathematics, and technical materials in the social sciences, and in literature.

A high school student is fortunate if every one of his teachers is willing to be a reading teacher in his field of specialization. This works both ways, for the teacher, too, is fortunate if his students are aiming to become mature thinkers and readers through the intelligent accomplishment of the developmental reading tasks in that specialized subject area. Proficiency in reading skills needed in a particular subject area will be generally useful in reading outside that field, and will prove particularly so in certain aspects of other content-reading materials.

The approach to reading in the fields of the natural sciences and mathematics, as in technical articles and in poetry, is that of slower-than-average, analytical, precise literal reading. In much of this type of material there are important, individual, relational words, technical or specialized vocabulary, abstract concepts, concentrated thought regarding principles, generalizations, and conclusions. In these fields, reading will involve following directions, applying laws and principles, "study-type" reading of charts, diagrams, and formulas, and "word-weighing" reading, because each *word* is significant. Technical words and familiar words with specialized meanings must be understood and experienced rather than memorized.

Chapter reading can be "softened up" by the *SQ3R* approach. Questions raised in problem-solving content areas are of an interpretive nature: What is known (or given)? What is to be found? What steps need to be taken by reading the problem without emphasizing the numbers? The problem must be read for as perfect an understanding as possible; it must, in fact, not only be read slowly and re-read, but diagrammed or summarized as well. Reading to solve problems in mathematics calls for a high degree of creative reading. In reading mathematics, skills attained, as well as concepts, are cumulative; they need to be developed in a structured or building-block type sequence more than those skills of some other subjects.

Cause-and-effect relationships are important in both science and social studies reading. It is necessary, therefore, to weigh two sets of factors to see if there is a true relationship, or whether one is merely expected because of the reader's preconceived ideas or emotional bias. Likewise, it is necessary to determine whether the relationship is merely one of time coincidence or actually one of cause. An example at this stage may clear up this last point: An old backwoodsman visited a large department store for the first time. He watched an elevator open, and in stepped an old, hobbling lady. The doors closed, and in a few short moments, they opened again and out stepped a pert, charming, young girl. The old man scratched his head and commented: "I should have brought my Rosie." Obviously, this was mixing time sequence with a cause-effect relationship.

Differences of reading skills required in the various types of materials lie not so much in the materials themselves as in the type of thinking involved. Distinctive skills necessary in reading the social sciences include skills in wide, rapid reading, skills in overviewing and previewing in order to sense the main ideas and the overall organizational pattern of extensive material, as well as the tone and intent of the author. Finally, the highest levels of those distinctive skills are those of critical evaluation and of relating what is read to an ever-increasing broad background of cultural and vicarious reading.

Social studies reading ought to be extensive. It is important therefore, to demand meaning of the whole selection, chapter, or book by utilizing the organizational structure of the book, the typographical and graphic aids to emphasis as utilized in the *SQ3R* method of "tenderizing." These organizational skills also include awareness of such methods as the author uses to communicate his ideas to the reader: sequence of facts, of time, of space, and of causal relationships; chronological order and time concepts; topical arrangements and emphasis; how much time (or space) the author devotes to a topic; enumeration, analogy, contrast, comparison.

In order to broaden his background and have referents for interpretation, the mature social studies reader needs the vast array of locational skills to find valid and pertinent information through the effective use of the textbook, source materials, and the library. It is vital for the student to have knowledge and ability in the use of the card catalogue, guides (such as the *Reader's Guide*, or *Guide to Periodic Literature*) prime sources and documentary materials, bibliographies, biographical sketches, newspapers — especially editorials, charts and visual aids—and finally a working knowledge of the student's own textbook: title page, significance of title, copyright date, preface (for the author's stated purpose) glossary or dictionary of words and concepts, introductions and summaries, end-of-chapter questions and study ideas, and the indices.

Granted, most social studies reading is non-fiction. It is nevertheless important for the student to recognize the author's style or his personal way of expressing his thoughts. Not only what the author says, but how he says it, carries meaning, expresses his viewpoint, and influences interpretation. Is the style official or formal and impersonal as in legal abstracts and deeds; rhetorical or elaborately figurative with high emotional appeal; balanced and scholarly; informal as in simple stories and in letters; or colloquial as in daily speech? Is the form strictly narration, exposition, description, argumentation, or a combination of these? Each style or form will tend to evoke different reactions from the reader.

The social studies field involves issues, values, interpretation, and conclusions. A mature reader, therefore, realizes that the author is human, is as fallible in print as in oral speech. He will not consider print sacred. The thoughtful critic will challenge the author with questions like these: What are you saying? What is your authority? What are the facts? Is your information correct? Do your facts warrant conclusions or implications? Is your evidence weighted in favor of one viewpoint or is it colored with emotionally toned words? A reader must question and challenge the author. To read critically is to read intelligently. The mature reader knows what the author has to say and then agrees or disagrees with him in the light of what he himself has known and has believed. He is critical of himself, of his own knowledge, and especially of his own biases and prejudices.

A good reader of social studies can find application of these skills in all areas of adult reading and adult thinking. Advertisements and commercials are points in question in the light of skills discussed earlier. Such skills are pertinent to all areas of critical reading including those used in literature.

Literature opens the whole field of artistic expression that is designed to communicate truth, usually of human life, and of reality wrapped in beauty—beauty of image or symbol; beauty of rhythm, coherence, or rhyme; beauty of economy of language as found in much poetry and in short stories; or in the beautiful vividness of description—to appeal to the reader through many aspects of his total personality. Critically he reaches for the truth, the theme or the message, while he creatively responds with his sense memory through visualization, with his imagination with which he builds the flesh and blood and circumstances of character, plot, and setting. The reader responds with all of his life experience, and strains for the fullness of life even vicariously experienced.

Literature furnishes some of the labyrinthian byways in man's quest for self in the light of the ultimate. It affords depths of insight into human relationships that help the reader understand himself and others a little better.

Artistic beauty and values related to the enrichment of human life are two culminating characteristics of true literature. Special use of words, their arrangement, sound effects, apt phrases, vivid images, mood and tone, and shades and precision of meaning are some of the elements that embody beauty of expression together with universal truth as a bonus. The elements concentrated in poetry are the ones that add to the caliber of any work of literary art. Beauty of expression, however, is not exclusive to fiction or to literary works; it is what makes any writing effective.

Emphasis of particular aspects of the concept of reading, the orientation or purpose of the author, or the nature of the reading material may change the approach to reading in the various content subjects in high school. Sometimes this approach, which may vary even with the same material read at different times, is a matter of the types of questions missed, the depth of reading comprehension, or the depth of reading interpretation.

Summary

The intent of this paper is to make teachers of content fields aware of the concept that adequate reading skills are vital to the high school student's success in any and all of the multiple disciplines for which he will be held responsible.

We have tried to show, within the limitations of time and space, that there is a commonality of reading skills amid the vast gamut of subject-matter knowledge and learning we expect of our high school students. By doing away with the connotative fallout of the phrase "reading in the content area" and emphasizing the concept of "functional reading" (with its concomitant overlapping of skills) we have attempted to change the notion that the reading act can be packaged, parcelled, or isolated into separate categories.

2. Initiating a Developmental Reading Program in High School

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OUR SCHOOL SYSTEM, for the most part, follows the advice of Alexander Pope: "Be not the first by whom the new are tried, nor yet the last to lay the old aside." Experimentation is the customary policy which precedes the introduction of anything new to the curriculum. This is a secure and comfortable procedure for the personnel working on the instructional staff in any large school system.

Even though the need for reading instruction in the high school area is felt nationally, and is part of the curriculum in many secondary schools, our school system laid careful ground work before reading was added to our curriculum. Many problems presented themselves for solution, and not all have yet been solved. Not the least of these problems has been in-service training for high school teachers who have had no experience in the teaching of reading.

Background

It will be helpful to present some background of the reading program that has been in effect in our parish for a number of years. In Louisiana, schools are operated on a parish wide basis; we have sixty-four parish systems and there are three city school systems. A parish in Louisiana is the civil division equivalent to a county in other states.

A developmental reading program has been in effect in Caddo Parish in grades one through six for many years and with the employment of two reading specialists in 1964, the school board prepared to extend the reading program to include grades seven and eight.

This reading program has been in effect during this school year; the basal program is used in these grades in a regular classroom environment. Provision was made also for remedial reading classes in grades nine through twelve. Basal readers are used throughout this entire reading program, and the Informal Reading Inventory is given for the purpose of grouping.

Experimental Reading Class

Personnel on the instructional staff, responsible for the reading program, felt that high school remedial reading classes could be taught by English teachers already employed in the schools if basals, manuals, and accompanying workbooks were used. With some in-service training by the reading specialist assigned to secondary schools, it should be possible for untrained teachers to follow the manual of a basal series and to teach the essential reading skills.

Many of these high school English teachers objected to the use of elementary basals in the high school area. They proclaimed that the high school pupil would not read these stories that he had "read" in elementary school. It developed that this was the idea of the teacher—not the pupil. Therefore, the reading specialist decided to teach a group of high school pupils for a period of six weeks, using a basal series, to determine what would happen.

The reading specialist made plans with the principal and administrators of one high school for the formation of an experimental reading class. The principal and administrators chose fourteen pupils to participate in the reading experiment. It was necessary to take these pupils out of their regular classes each day from 11:45 to 1:00 to participate in this experiment.

The fourteen prospective participants were administered the Informal Reading Inventory and the *California Reading Test,* form X. The scores of five of the prospective participants showed that they were already reading at grade level, or above, so it was decided that these five would not be compatible with the proposed experiment nor with the other participants. They were, therefore, sent back to their respective classes and did not take part in the reading experiment.

Using all test scores as a basis, nine pupils were admitted to the experimental reading class and were placed in instructional groups; seven were placed in a sixth grade reading group, and two in a fourth grade group.

The method of instruction employed with this experimental group was the developmental reading procedure using a well-known basal series and its accompanying manuals and workbooks. Library books at third, fourth, fifth, and sixth grade reading levels were provided for use when the assigned class work was completed.

Dolch Basic Sight Vocabulary Flash Cards were also used with the two boys in the fourth grade reader. After some help, these boys were able to use the flash cards without aid from the instructor.

The class continued for a period of six weeks, with uninterrupted instruction. At the end of the six-week period the *California Reading Test,* form W, was administered. Scores from the first and last test appear in the table below, along with instructional level from the administration of the Informal Reading Inventory.

		California Test X					California Test W					IRI
Pupil	I.Q.	Voc.	Gr. Pl.	Comp.	Gr. Pl.	T G.P.	Voc.	Gr. Pl.	Comp.	Gr. Pl.	T G.P.	Inst. Level
1	123	20	8.4	35	9.0	9.0	30	10.7	40	10.0	10.5	6
2	86	11	6.3	23	7.4	6.9	13	6.8	37	9.3	8.5	6
3	89	18	8.0	33	8.7	8.6	25	9.6	34	8.9	9.4	6
4	91	13	6.8	31	8.4	7.9	23	9.1	26	7.8	8.4	6
5	85	16	7.5	24	7.6	7.5	18	8.0	32	8.6	8.5	6
6	92	14	7.0	26	7.8	7.5	17	7.7	21	7.2	7.3	6
7	90	14	7.0	24	7.6	7.3	10	6.1	38	9.5	8.3	6
8	74	16	7.5	21	7.2	7.2	15	7.3	26	7.8	7.6	4
9	80	6	6.0	7	6.0	6.0	11	6.3	15	6.5	6.0	4

A comparison of test scores from the two tests given offer proof that most of the members of the reading group made progress during this concentrated period of instruction.

On the first day of actual instruction, when the basals were introduced, some of the pupils indicated they had read the books in the fourth or sixth grade. Three different basal series are used in elementary schools, so it was true that some had seen the books used in this experimental group and some had not. The general purpose of this experimental class was explained to them, and from this time on they gave their full cooperation to the instructor. The participants did not, at any time, offer resistance to reading either the stories in the basals or the library books. In fact, they seemed interested in both and pleased that they could read them with ease.

At the conclusion of the experiment, and following a conference with the principal and administrator of the school, the reading specialist felt that it could be safely assumed that a classroom teacher who grouped pupils within their own reading levels, and who used basal texts and manuals as intended, could almost certainly provide adequate, progressive instruction in high school for the below grade level reader.

At the present time, in four high schools in this parish, there are ten reading classes for the below grade level readers. Teachers are now being trained for added classes in the fall of 1966, and the new term will begin with a total of at least fifteen classes.

In-Service for all English Teachers

Concurrent with the initiation of classes in the high schools for below grade level readers, in-service meetings were held with English teachers to introduce techniques and methods for teaching reading and literature in regular English classes. It was demonstrated to these English teachers how all pupils could be helped by putting on the board some of the more difficult words from a story or play, by giving some background of the story, and by writing on the board a few questions to set the purpose for reading.

It was further demonstrated how reading skills, in the comprehension area especially, could be taught after the silent reading, through discussion of the story. The teachers were encouraged to strengthen word skill by actually using previously introduced vocabulary for word analysis.

English teachers are still being encouraged to do these things through faculty meetings, small in-service groups, an annual pre-school reading workshop, and a parish wide reading in-service program during the school year.

Individual Differences

A workshop was held this spring for English teachers, and one meeting was devoted to meeting the challenge of individual differences in all classes. Unfortunately, some pupils in regular English classes are unable to read the books on the list distributed by the teacher, usually in the fall, as a list of required reading for the course. Therefore, it was suggested to these teachers that they give different lists to the below grade level readers, listing titles the pupils would be capable of reading. The school librarian is an excellent resource person to aid teachers in preparing individualized reading lists.

In this spring workshop, English teachers were urged to give individual assignments commensurate with the capabilities of the pupils. This procedure would not necessarily involve twenty or thirty different assignments, but usually could be grouped into three or four.

Reading in Content Subjects

Too often, because every teacher is considered a teacher of reading, no teacher actually teaches reading in the specialized subjects. Reading in the content field offers a challenge, and consultants in specialized subjects are frequently called in to work in our parish with staff members, principals, and teachers. Those responsible for reading in the secondary schools feel that the success of the total reading program depends upon the inclusion of reading in specialized areas. *Every* high school pupil should be given reading instruction.

It is necessary to help all secondary pupils reenforce and strengthen reading skills. They also need help with study skills. A great deal of material has been distributed to help not only teachers of English, but teachers of all specialized subjects, in order that they may teach all secondary pupils how to use reading and study skills. For instance, many of our parish teachers were introduced this year, for the first time, to the *SQ3R* method of study. Ground work has already been laid, through conferences with principals of high schools in Caddo Parish, to initiate special reading activities in all senior classes for the college bound student. A large percentage of the students in this parish system are college bound and they need techniques in reading to aid rate, critical reading, and some word study.

Summary

The school system discussed in this paper has been in the process of initiating a developmental reading program. While much progress has been made, certainly the program leaves much to be desired. Experimentation has been, and will continue to be, the basis for introducing new methods, techniques, and materials into the curriculum.

The basal reading program in grades one through eight, with correctional reading classes in high schools, has been successful and will be expanded next year in the high school area. In-service programs, workshops, and small faculty group meetings already instituted have brought new concepts to teachers and all of these in-service institutes are to be continued and expanded in the future.

A complete developmental reading program cannot be achieved overnight, but is a continuous, on-going program that requires constant experimentation, research, and upgrading. This school system has made a good start, has achieved reasonable success, and will continue in an attempt to solve the pressing problems in the field of reading.

D. COLLEGE LEVEL

1. Flexibility in Reading

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FLEXIBILITY IN READING has received a great deal of attention in the last few years, with a comprehensive review of the literature appearing in the January 1965 issue of the *Journal of Reading*[1].

No final agreement seems to be available as to the nature of reading flexibility. In general, the term refers to the activity a reader is engaged in when he sets up various patterns of thinking relative to his reading needs, and then selects the skills that best accomplish this purpose. The term also implies that the reader can carry out the reading activity selected with an optimum of comprehension for the time expended.

Flexibility in reading is based on a complex series of thought processes with a highly developed coordination assumed between them and the reading performance. In the act of reading flexibly, all the reading skills of the person meet in a constantly shifting relationship. At one moment the person reads rapidly, or perhaps applies the skill of skimming. In another moment he may pause to make a critical appraisal of a point the writer is making; further on he may compare and relate to experiences of his own or from another reference. Therefore, flexibility is perhaps more a reflection of the reader's existing mental state or personality and behavioral characteristics than is any other reading task. I am suggesting that flexibility in reading is in part an extension of the reader's present capacity for psychological freedom or the opportunity to exercise that freedom. Reading flexibility, then, may be assumed to find nurture in the creative personality and/or a creative, permissive atmosphere. An hypothesis that may be made is that the reader whose personality is basically inflexible or non-creative will show little gain in reading flexibility when the major instruction is a short term skills-drill approach. Further, such training for flexibility carried out in a rigid, conformist, teacher-oriented atmosphere will only add to these persons' present rigidity and inflexibility.

Reading Flexibility and the Creative Personality

A body of knowledge has been steadily accumulating in the area of creativity and the creative personality. Reports of studies on creativity continue to appear in the various educational and psychological journals, including the reading journals.

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[1] Arthur S. McDonald, "Research in the Classroom: Rate and Reading Flexibility," *Journal of Reading*, VIII (January, 1965), 187-191.

The function known as flexibility in reading can perhaps be better understood when viewed along with the literature on creativity or the creative personality. These comments are meant as hypotheses to raise questions about the nature of flexibility, rather than to be accepted as answers. Perhaps the questions will be sufficiently thought-provoking to lead to some research in this area.

First, what inferences can we gain from the literature to suggest that reading flexibility is related to creativity? Does reading flexibility have need for a creative personality and/or a creative atmosphere for best growth? In factorial analysis studies of creativity by Wilson, Guilford, Christensen, and Lewis[2], the basic factors of creative thought were found to be a *sensitivity to problems; associative fluency; ideational fluency; adaptive flexibility; spontaneous flexibility;* and *originality*. These factors are not only the basic elements of creativity, but they are commonly associated in discussions about reading flexibility. Let us consider these factors one at a time. For example, it is a sensitivity to problems that helps the reader not only to carefully define his needs for reading but also helps him to be alert to clues for selecting a pattern of reasoning or thinking relative to his needs and the material being read. Associative and ideational fluency, the next factors listed in our reference on creativity, are basic requirements of the flexible reader, when, in relation to purpose and selection of skills, he modifies the kind, amount, and rate of associations required for a reading task. Adaptive and spontaneous flexibility, two more factors given as parts of the creative personality, suggest that the person is able to change his direction of thinking to meet new requirements and is able to seek answers without perseveration or inertia. These functions are unquestionably the crux of flexibility in reading. For example, freedom to change easily from one mental "set" to another in relation to the requirements of the reading, and enough freedom from inertia to be able to develop new questions for new situations are necessary to carry out the functions commonly referred to as previewing or preview-skimming. The last mentioned factor of creativity—originality—surely must function in any flexibility in reading, for unless the reader can produce original organizations within a reading relative to his needs, such techniques as preview skimming can only result in outlines of discrete data rather than relating ideas to new configurations of thought.

From her investigations into the creative personality, Ruth Strang[3] adds the term *integration*. Integration suggests an ability to find unity, to perceive structure and design, to discover likenesses, and to relate and connect ideas. These functions are exactly what the flexible reader does; indeed, these characteristics clearly define the flexible reader. A survey of studies on the creative person reported by Wilson[4] concludes that the central element of the definitions appears to be the ability of the individual to rearrange his knowledge or experience into a new pattern or idea. This is the central element in the characteristics of the flexible reader; he must be able to quickly rearrange his knowledge and experience in order to economically and effectively evaluate and select new ideas from each new page of print.

Rogers[5] identifies psychological freedom and psychological safety as conditions fostering creativity. Psychological freedom refers to an environment that allows a person to develop his own evaluation system, and psychological safety refers to an environment that does not evaluate the person. Although the literature identifies the environment that produces an atmosphere antagonistic to psychological safety and freedom, I should like to illustrate this point from my own experience and to try to show the interrelatedness of rigidity and non-creativity, and flexibility in reading.

Some years ago a young minister came to my office with a problem of extreme inflexibility in reading, a restriction so serious that it was taking him several months to read rather short, non-technical books, even in his areas of knowledge. In conference, I learned that he had been raised by his aunt in a highly rigid and non-permissive environment. This early training, I assume, at least in part helped to produce the kind of rigid behavior that the client indicated in the clinic. He lacked those factors listed as belonging to a creative person; in fact, he had at one point in his career taken up art, but abandoned it, not because he could not follow a design; on the contrary, he could produce only a facsimile of the object he painted. Seemingly he could not allow himself to deviate in any respect from a true reproduction, even though his teacher tried to modify his painting by requiring him to grasp the brush at the far end of the handle, rather than in the more natural position for the best brush control.

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[2] R. C. Wilson, J. P. Guilford, P. R. Christensen, and K. J. Lewis, "A Factor-analytic Study of Creative-thinking Abilities," *Psychometrika*, 19 (1954), 297-311.

[3] Ruth Strang, "Developing Creative Powers of Gifted Children," *Creativity of Gifted and Talented Children*, Bureau of Publications, Teachers College, Columbia University (February, 1959), 20-31.

[4] R. C. Wilson, "Creativity," In Nelson B. Henry (Ed.), *Education for the Gifted*, The National Society for the Study of Education Yearbook, LVII, Part II, 1958, 108-126.

[5] C. R. Rogers, "Toward a Theory of Creativity," *Review of General Semantics*, 11 (1954), 249-260.

Although his basic reading skills were adequate when he came to the clinic, his rate was unbelievably slow, and he was completely unable to read other than a thoughtful, carefully delineated word at a time. He told me that he stopped after every word to savor its full significance.

This client indicated the symptoms of the inflexible reader suggested by Laycock[6] at the I. R. A. Convention in 1962: he could not apply what he read to any ideas outside the printed page. He was tied to the immediate scope of the words at hand, unable to detach himself to rearrange them, fearful of deviation from a routine, familiar pattern. He could not move freely among words looking for an elusive idea. Although our client did not become a good reader in the two years he visted the clinic, he did improve in his overall approach to the reading process by becoming able to tolerate some flexibility in his reading. More significantly, he showed a comparable change in his rigid and inflexible approach to life. It was noted not only at the clinic, but was commented on by his parishioners.

It is, of course, impossible to draw any real conclusions from a single case. It was apparent that the client was very rigid and exhibited all the symptoms of the noncreative personality coupled with severe inflexibility in reading when he came to the clinic. But he showed improvement in both areas concurrently. To say that there was a cause-effect relationship, or that a loosening of the tight and rigid personality structure effected a change in his reading patterns, would not be justified from these informal observations. But there is a question inherent in these observations that a carefully designed study could help to answer.

Kurt Goldstein[7], a neuropsychiatrist, lends some credence to the cause-effect theory, for he states from his studies that a person will select those portions of his environment (from our orientation, flexibility in reading) that are adequate to him and for which he is adequate, and that he cannot accept another. Studies by Lecky[8] also conclude that any value which is inconsistent with the individual's valuation of himself cannot be assimilated; it meets with resistance and is likely, unless a general reorganization occurs, to be rejected. Relating this statement to the noncreative, rigid person, it would suggest that his own self-concept would make it impossible for him to adequately assimilate a function such as flexibility in reading that would be inharmonious to the basic style of his personality.

Many other resources might be used to verify the relationship of reading approach to personality structure. Walter Moore[9], for example, speaking at the 1962 I. R. A. Convention, stated that successful skimming appears to require certain emotional freedoms which may outweigh intellectual or reading competencies.

Kingston[10], formulating some general

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[6] Frank Laycock. "The Flexibility Hypothesis in Reading and the Work of Piaget." In J. Allen Figurel (Ed.), *Challenge and Experiment in Reading*. Proceedings of the Seventh Annual Conference of the International Reading Association, 7, 1962, 241-243.

[7] Kurt Goldstein and M. Scheerer. "Abstract and Concrete Behavior: An Experimental Study with Special Tests," *Psychological Monographs*, 53 (1941), 12.

[8] Prescott Lecky. *Self-consistency: A Theory of Personality*. New York: Island Press, 1945.

[9] Walter J. Moore. "The Skimming Process in Silent Reading." In J. Allen Figurel (Ed.), *Challenge and Experiment in Reading*. Proceedings of the Seventh Annual Conference of the International Reading Association, 7, 1962, 203-206.

[10] Albert J. Kingston, Jr. "A Conceptual Model of Reading Comprehension." In Emery P. Bliesmer and Albert J. Kingston (Eds.), *Phases of College and Other Adult Reading Programs*, Tenth Yearbook of the National Reading Conference, 1961, 100-107.

postulates about reading from a review of research, stated that excessive anxieties, rigidity of personality structure, and prejudices and biases may limit or distort message intake.

As a summary at this point, let us again refer to our original hypothesis—that flexibility in reading finds an environment natural to its growth in the creative personality, but finds a climate antagonistic to its growth in the rigid, noncreative personality.

Creating an Environment for the Nurture of Flexibility

Assuming, for the purposes of discussion, that our hypothesis is true, can an environment be developed that will act as a medium for the growth of flexibility in reading when the subject himself is not particularly creative?

What about the methods we use to promote flexibility? Are they routine and unimaginative, with little or no opportunity for the student to put a part of himself into the work? Do they deal with limited facets of flexibility only, with emphasis on rate monopolizing most of the time? Are materials unimaginative with little student activity required? Do evaluations of the work require a typical rote-memory type of activity to achieve rather than requiring the use of the flexible skills supposedly taught? Hill[11] suggests that factors which may contribute to reading rigidity rather than flexibility are the conditioning influence of instructional emphasis upon reading mechanics and the tendency to avoid connotive and affective conflict. Avoidance of conflict would require the student *not* to learn certain techniques, if their practice caused him to show a lower achievement score than would more typical methods. Perhaps one of the most important factors contributing to lack of flexibility is the rigid, correct answer variety test that does not give the student any opportunity to indicate whether he is flexible or not. Better evaluation devices are necessary as a part of a program devoted to promoting flexibility in reading. Hill further discovered in his work at the University of Oregon that the tendency to direct flexibility by giving a single reading set, such as "read to find the main ideas" or "read to analyze the motives and attitudes of the author" was structurally and theoretically unsound. College students in his study indicated reading frustration rather than flexibility under these conditions. However, he found that the addition of a second reading set, corrective feedback, enhanced or increased the interest and success of the group. His conclusion was that greater use of corrective feedback may contribute to greater reading flexibility. Carrying this thought further, it might be suggested, although Hill did not, that the nature of the corrective feedback received its impetus from the immediate needs of the student and thus had within it the force of need satisfaction, the only real motivator or organizer of behavior.

Purposes that lead to self-actualization are perhaps the best of all media to produce flexible readers. These are the purposes that students are allowed to develop for themselves, not in a sense of coercion or through fear or pressure, but because they believe that searching in relation to their needs can be a genuine source of satisfaction. One of the graduate assistants who teaches in our college reading program has an unusually low student dropout rate of only five per cent a semester. I asked her what she thought was responsible for this, and I quote: "The students feel that they are accomplishing *their* purposes, not working on the problems that *I* say exist."

Many school curricula are daring to try imaginative programs that seem to produce flexible persons and, with them, I am assuming, flexible readers. The high school in Melbourne, Florida, is an illustration of the creative program. Students, for example, carry out a wide variety of projects in a multiplicity of fields. Dr. Brown, the mentor of the program, challenges students to explore and ask questions and to study and read widely and independently. This school system has produced astonishing results in student achievement based on the assumption that young people are curious and really want to know if they are given the encouragement and facilities to aid them in their search. Within such an environment, students are taught how to *be* flexible, not just *act* flexible on a single function such as reading.

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[11] Walter Hill, "Influence of Direction upon the Reading Flexibility of Advanced College Readers." In Eric Thurston and Lawrence Hafner (Eds.), *New Concepts on College-Adult Reading*, Thirteenth Yearbook of the National Reading Conference, 1963, 119-125.

Another notable example of the flexible, creative environment is found in the introductory botany classes taught by Postalwaite at Purdue. The student works in a program without lecture classes of the usual sort and without rigidity assigned laboratory sections. Here the learner has maximum psychological safety and freedom, working against his own schedule rather than one imposed completely from administration. Results of this experiment indicate marked improvement in the amount learned by the students. If large school systems and curricula dare experiment so imaginatively, why can we not develop little Melbournes or Purdues in our reading programs? The student-oriented, small discussion group session, based on student need rather than teacher need, seems a rational environment to produce a real base for reading flexibility.

Summary

Flexibility in reading is the product of an attitude and environment that offers the reader a maximum of psychological freedom and safety. Mechanical attempts to produce flexibility within an environment which is coercive and rigid may indicate some immediate results from testing, but testing after a lapse of time will, according to the assumptions within this paper, show little or no permanent gain.

2. Developmental Reading Skills for College Students

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MOST AUTHORITIES recognize developmental reading instruction as the teaching of those reading skills needed by the "typical" student for his continued progress in school. Developmental reading instruction should not be confused with remedial reading instruction, which is the teaching of basic reading skills to an "atypical" student who for one reason or another did not learn to read adequately during his earlier years in school.

Because he is a member of a select population, the average college student should already have acquired the developmental reading skills taught at the high school level. Ideally, the college student has been taught or has discovered for himself how to determine the meaning of an unfamiliar word in print by its use in context, by the derivable meanings of its parts, or by a quick and competent consultation with the dictionary. He should also have at his command the necessary reading comprehension skills which enable him to understand an author's meaning. Finally, he should have cultivated flexibility in reading rate. On the other hand, if a college student manifests basic weakness in any of the areas of reading—vocabulary, comprehension, or rate—he should enroll in the special reading course which, hopefully, his college provides.

College work requires a far more stringent type of reading than that which the average freshman has previously encountered in high school. To meet the demands of this higher level reading, most college students need reading instruction to cultivate higher reading level skills. Therefore, most colleges are establishing developmental reading programs through which these higher level skills can be taught.

Higher Level Comprehension Skills

Primarily, developmental reading at the college level is concerned with higher level comprehension skills. Smith sees the area of reading comprehension subdivided into three stages: receptive reading, critical reading, and creative reading. Receptive reading concerns those skills which enable the reader to understand what the author has to say—to absorb the author's meaning.[1] To understand what he reads, the student must ascertain the author's facts or details and then determine the main idea which they support. This is undoubtedly the most basic reading comprehension skill. Often the details which support the main idea are arranged according to a specific pattern or structure, and the competent reader discovers these patterns when they occur, and uses them to lead his mind with more proficiency to what the author is saying. Examples of such organizational patterns are *sequence, comparison, cause and effect,* and *generalization, summary,* or *conclusion*[2]. As a rule the majority of college students can read adequately at the receptive level.

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[1] Edwin H. Smith. "Developing Creative Reading," *Journal of Reading*, VIII (March, 1965), 279.

Smith sees critical reading as reading to appraise, evaluate, and form judgments. This is an area of higher level reading comprehension skills, and they are difficult to master until the receptive reading skills are well entrenched[3]. Because many otherwise competent college students have not been taught to read critically, provision for the instruction of critical reading should be provided at the college level.

According to Smith, creative reading may be divided into two parts—*divergent* creative reading and *convergent* creative reading. Primarily, divergent creative reading uses the author's ideas as a springboard for new ideas. Convergent creative reading uses the author's ideas to solve problems[4]. Unfortunately, only a small amount of study has been done to identify the skills and to develop teaching methods in the area of creative reading at the present time.[5]

Critical Reading

Because of the need for college students to read critically, this writer has developed a method to teach critical reading at the college level. This instruction is based on the thinking of Robbins[6], who is presently designing a test in this area. Although he is certain that the method about to be described is not the only way to teach critical reading, the writer can testify that his students have found the following reading techniques to be helpful with their college level work.

This writer defines critical reading as the ability to judge the truth, logic, and worth of what is being read in light of the reader's experience. Basically, critical reading consists of four steps. First, the reader must see the "path" (movement of an idea in print.) Second, the reader searches for a weakness in this path. Third, the reader constructs in his own mind a "model" path with the author's weakness now corrected. Finally, the reader combines the best aspects of his model with those of the author's presentation.

In order for a student to learn this process, he must be taught several tasks. The student first must ascertain the author's stated conclusions. Assuming that he can read effectively at the receptive level, he should have no difficulty here. Few authors are so incompetent as unintentionally to garble or to hide their conclusions. The student then must learn to trace the author's thinking from his conclusions back through the intermediate stages of his development until the statement containing the basis of the presentation is found. This basic statement is called the *starting point.* Unless the author is literally talking in circles, his path of thinking is now exposed to the student. It begins with a starting point, is developed, and finally is terminated with conclusions.

In addition the teacher should point out that the starting point is seldom the main idea of a selection. Rather, it is the touchstone from which the main idea springs. Occasionally there may be a compound starting point; the author may have more than one premise for his conclusions. Also, the starting point may merely be implied by the author, in which case the student must be alerted to see it as an inference.

With the path of the author's thinking now apparent to him, the student must be directed to look for weaknesses. The teacher should suggest certain criteria to guide the student in his evaluation of the author's presentation. First, is the author competent to speak on the subject of the presentation? What are his natural attributes, his personal experiences, his training which might qualify him? Second, what is the author's motive? Does he try to instruct the reader or to persuade him? Is the writer consciously dishonest or unconsciously prejudiced? Third, how logical is the author's thinking? Is his starting point valid? Is his development sound? Are his conclusions adequately supported? Fourth, how accurate are the author's data? Are they correct in light of the reader's personal knowledge? Do they agree with evidence from other authorities? Finally, how recent is the writing? Is it relatively new, or is it now outmoded by later discoveries and events? In summary, step two in critical reading calls for a testing of the author's presentation in light of the student's personal or vicarious experiences.

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[2] Oliver Andresen. Developing Purposeful and Flexible Reading in Grades Nine through Fourteen."" *Recent Developments in Reading,* Supplementary Educational Monographs, No. 95. Chicago: University of Chicago Press, 1965, 177.

[3] Smith, *Op cit.*

[4] *Ibid.*

[5] Oliver Andresen. "Evaluating Profundity in Literature," *Journal of Reading,* VIII (May, 1965), 387.

[6] Ruth Robbins, candidate for Ph.D., University of Chicago.

If upon the completion of step two he sees no weakness or fallacy in the author's path of thinking, the student can be directed to integrate into his own experience that which he finds of value in the author's presentation. On the other hand, if the student does find weakness in the author's presentation, the student should be directed to continue with his critical reading and thinking so that his resulting experience will continue to be rich and informative.

The student, therefore, must be taught to carry out the tasks which comprise step three in critical reading. The scene of action now must shift exclusively to the student's mind where he begins to construct a path of reasoning of his own—a model patterned after that of the author's, but without the weaknesses which have just been determined.

The student must be taught to construct his model from ideas accumulated by three processes. First, the student takes ideas from his own personal experience. Perhaps he has had similar living experiences to that of the author and can therefore speak upon such experiences with almost the same degree of authority. Second, the student can construct his model from ideas he has learned through vicarious experiences. Finally, the student might find material for his model through research. If the matter were significant enough, the teacher might direct the student to investigate the opinions of other authorities in the same field as that of the author.

With his own model well established in his mind, the student now must move the scene of action back to the ideas on the printed page. Being encouraged by the teacher to proceed with a sense of impartiality, the student now compares his model to that of the author. Re-evaluating the author's path of thinking by comparing it to the student's model usually results in considerable enlightenment. With direction from the teacher, the student will note that now some of the author's weaknesses are not so evident; at the same time, some of the author's strong points might have paled a little. Hopefully, the process also works in reverse. The student should now be directed to see some deficiencies in his own model. It therefore remains for him to accept the best of both paths of thinking, the author's and his own. The result is "new" thinking. By reading critically the student has not only gained ideas from the author's presentation but has contributed to it as well.

BUILDING COMPREHENSION ABILITIES

A. PRIMARY LEVEL

1. Reading as a Thinking Process

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A DISCUSSION OF READING as a thinking process is subject to the danger, on the one hand, of being developed in such a way that comprehension of printed matter seems an easy, facile, almost palpable accomplishment or, on the other hand, it may be developed as an extremely complicated, abstruse, or even esoteric ability. Perhaps a middle course can be attained avoiding the pitfalls of both oversimplification and the creation of an enigma.

Reading and Thinking

The words *read* and *think* are to be found in the speaking vocabularies of pre-school children, and they are encountered in the reading materials attempted by most children in the first two years of school. Both words, however, relate to processes which are difficult to describe. Identifying behavior as probably being reading rather than running, talking, or laughing is not difficult; but one may look at the page of a book without reading. According to Bond and Tinker, "A generation ago reading was considered to be a relatively simple process. Now it is recognized by both authorities in reading and by experienced teachers to be a very complex process."[1] Since *thinking* is also a covert act, we can only infer that it has occurred on the basis of overt behavior. Defining thinking as a process presents some difficulty. Klausmeier and Goodwin say, "Thinking has been an interest of mankind for a long time, in part because he can engage in the process but cannot define it. In this regard thinking is like learning. In fact thinking may be considered a mental activity that is essential to learning most outcomes. Despite the apparent simplicity, thinking is as complex as learning itself."[2]

It seems that consideration of reading as a thinking process, if treated fully, is an appropriate subject for an entire book, or at least a major section of one. To bring the topic within the scope of this paper, development of a perspective for the relationship of thinking to reading *above the level of sentences and paragraphs* will be stressed. This means that the area of concern will be *how the thinking process is involved when the primary-grade child tries to construct the meaning for major sections or for the entirety of a story or an article.*

Lexical and Syntactical Levels

Before considering this major issue, it is necessary to recognize the fact that meaning and thought relevant to the whole story or article are most certainly affected by meaning at the word or lexical level and by meaning at the syntactical and paragraph levels. The reader will need to have attained a level of linguistic sophistication which insures that he will know what is referred to by the word symbols that are used and that he will functionally respond to grammatical relationships inherent in the writing. Writers of materials for primary-grade children in the United States usually attempt to exercise control over these linguistic elements to the extent that the child for whom English is the vernacular and who has developed moderate speaking and listening ability should have the requisite linguistic facility. Obviously, the degree to which this assumpton is correct varies with authors and with children who attempt the reading. We should remember, however, that just because a child knows what a symbol stands for and because he is able to cope with the grammatical relationships does not imply that appropriate mental activity is in progress when his eyes are focused on the page of a book. For the purposes of this presentation, however, let us suppose that word meaning, functional grammar, and sentence and paragraph meaning are not crucial problems for the kind of reading material to be experienced by children in the primary grades.

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[1] Guy L. Bond and Miles A. Tinker, *Reading Difficulties: Their Diagnosis and Correction*, New York: Appleton-Century-Crofts, 1957, p. 18.

[2] Herbert J. Klausmeier and William Goodwin, *Learning and Human Abilities*, New York: Harper and Row, 1966, p. 257.

Patterns in Thought

Thought is limited by one's ability to combine, transpose, augment, and diminish ideas. This suggests that whether one is using the thought process for interpretation or for expression he puts ideas together and establishes an organization that is meaningful for him, he embellishes these ideas from his background of knowledge, and he reorganizes them to combine the compounded and augmented ideas so that they come to represent what he understands regarding the subject which stimulated thought.

In making application of thought in reading we might observe that the thoughtful reader *conceives* ideas inherent in the author's presentation, gains *insight* by bringing his own experience into interaction with what he believes the author is suggesting, and achieves *understanding* by extracting what to him is the essence of the combination of the author's expression and his own experience. The thought process might be considered a progression from conception to insight to understanding.

If thought is to occur in association with reading, the child must do more than name words and apply appropriate expressional groupings. Thinking must be stimulated by concern on the part of the reader. This concern on the part of the reader is commonly called *purpose* in most materials related to reading instruction. Thought is stimulated by the child's own purpose, not by an artificial one imposed by the teacher. The teacher may identify a purpose and lead him to accept it, but until the child makes it his own purpose, it will not be the stimulus that triggers thought.

Patterns in Reading Materials

Any consideration of children's purposes for reading should involve a sharp distinction between narrative and expository writing. Subject matter or study type materials require a different pattern of thought than that used for narrative. Narrative has a distinctive organizational pattern involving a theme expressed through setting, plot, and characters. The purpose for reading this type of writing is to enjoy the story. Exposition also has a distinctive organizational pattern involving the development of an idea through explanation and development of major related ideas which are in turn developed through supporting ideas and details. The purpose for reading this type of writing is to extend one's knowledge of the particular topic. To fail to help the child establish a knowledge of the inherent differences in these basic types of reading material, to treat a story as if it were a topic for study, is confusing and limits the effectiveness of the child's attempts to make reading a thought process.

How is the thinking process involved when the child attempts to read a story? We should identify the thought process in this instance as being an example of convergent thinking in that there is a pattern or structure involved and there is an appropriate interpretation based on limitations inherent in the linguistic symbolization used by the author. The pattern which the author follows in relating the story, and which the reader should use to arrive at the appropriate interpretation, is the one which is common to narrative writing.

The thinking process of the reader should be so ordered that he responds to the author's presentation and combines ideas gained with his own related ideas to arrive at an understanding of (1) the setting, (2) the plot structure (including sequence of events and climax), (3) the characterization, and (4) the theme. As the reader matures in his experience with narrative, these enumerated elements of the pattern should be acquired with less attention to specific items and more attention on the integrated story pattern. In the early stages of reading development, however, it is important that the novice reader devote conscious effort to identifying ideas associated with story elements. The strength of some stories will be in the characterization, for some it will be in the plot, and for others the setting may be of prime importance. All stories, however, will present their themes through some arrangement and weighting of these elements.

Thoughts about the setting ought to establish the time, place, and conditions for the action of the story. Some indication of the setting should be conceived at the outset of the reading, but clarification of these ideas should be achieved as the reading progresses. The initial conception should also be enhanced by what the reader knows about similar settings. The plot or sequence of events will have to be conceived as taking place in this setting, and the characters through whom the plot is developed will need to be conceived in relation to both plot and setting. Thoughts about the plot should be carried along during the reading and used to clarify character motives and, ultimately, the theme. As a part of thought concerning plot structure the reader should identify events as being supportive of broader elements of the plot such as conflict, suspense, and climax. Usually the focal point for organizing thought about a story is the characterization. It is the characters who give life and significance to the theme of the story by performing the action within the story setting. Ideas about the traits of characters will be acquired as a developmental process during the reading. The actions of the characters, pictorial or verbal descriptions of them, and what the author has them say should contribute to the reader's conception of them. Relation of ideas concerning plot and setting to characterization should provide ideas about character motives and probable behavior as the story develops. Integration of ideas concerning setting, plot, and characterization should suggest the theme which the author has developed. If the reader's conception of other story elements is faulty, the theme may be difficult to identify and appreciate.

Instructional procedures can hinder the reader rather than help him in his effort to think through the organizational pattern of the story as he reads. Overemphasis on identification of sequential events in a story is detrimental. Some instructional materials suggest long lists of events to be identified by children for a comparatively short story. Another procedure which causes difficulty is the discussion of initial segments of the story before the reader has an opportunity to establish ideas about plot and characterization. Use of instructional materials which contain stories that are very weak in characterization also limits full development of thought. Even primary grade children should use materials which help them to see that there is more to a story than the action that takes place.

Stimulation of Thought

As stated earlier, the basic purpose for reading any story is to enjoy it; without this purpose the reading is perfunctory. Enjoyment comes as the story unfolds. Delight in the development of a humorous situation, the excitement of events that build to a climax, and empathy that is developed for characters, are some of the ways in which satisfaction with a story is achieved. Enjoyment is apt to be greatest when we are able to complete the reading of the story without interruption. It may not be possible to read lengthy stories at one sitting. The desire for clozure, however, is evidenced by the adult who does not want to put a good book down although he may have other pressing matters to which he should give his attention. It is also evidenced by the child who continues reading beyond the place where the teacher asked him to stop, even though he may have a strong desire to conform to her wishes. Stimulation which comes from purpose is a precious thing which we should try to foster to the fullest—adequate thinking is impossible without it.

Despite the importance of purpose to thinking, some of our instructional procedures thwart purpose rather than facilitate it. One instructional procedure which interferes with the enjoyment of a story is the extended introduction which is ostensibly designed to create interest. It is the author's job to write an interesting story, not the job of the teacher to create interest in a story that is not inherently enjoyable. Extended introductions are apt also to disclose story elements to such an extent that little is left except to read to answer questions posed by the teacher. From the child's point of view, such reading leaves much to be desired. It is usually tolerated rather than enjoyed. Since stories involve a segment of real or imagined life, the child will usually be able to project. Living the story as it develops is basic to its enjoyment.

A second instructional procedure which thwarts enjoyment is the fragmentation of a story. Story development that occurs on one or two pages is usually meagre. If the child begins to enjoy the story but is required to stop his reading for discussion and oral reading of a page or two, his zest for the reading is dampened to some degree. Reading only bits of stories at a time also mitigates against the early development of ability to read trade books, because the child is uncertain of his ability to read lengthy stories.

Criticism of story introductions and story sectioning should not be construed as a plea for abolishment of these procedures. They should be employed where they are needed to develop reading skills, but they should be used only to the extent necessary for a given child or group of children. The caution suggested here is that we realize that greatest enjoyment comes from savoring the story as it progresses and completing it, if possible, without interruption.

Instruction in the reading of expository materials is chiefly a problem for the intermediate grades. Listening activities in the primary grades, however, should include exposure to exposition; and identification of main ideas supporting ideas, and details should be initiated. Where this is done, the material should be related to on-going study so that its purpose is to expand knowledge.

Summary

Considered on the level of meaning for an entire story or article, thought is concerned with developing a synthesis according to the organizational pattern common to the type of writing in question. Primary grade children will be chiefly concerned with narrative which involves setting, plot, and characterization as elements to be synthesized into a pattern which will express a theme. The thought required for developing this synthesis will be limited by the reader's ability to combine his conception of an author's ideas with his own related information and arrive at an understanding abstracted from both. The thought process is used in many settings; reading is one of them.

2. Building Initial Critical Reading Abilities

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CRITICAL READING IS A relatively recent term which has evolved from an increasing awareness of the importance of the reader's reacting to, or thinking about, ideas expressed in print. While there is no universally accepted definition, in this article the term will be used to mean judging printed statements as distinct from evaluating literary merit.

Levels of Reading

Let's exemplify critical reading on a ladder of reading skills by examining some skills which precede it. At the very simplest level, we are concerned that the child makes a direct decoding of the author's statements. This is what most teachers mean by "comprehension." For example, the child reads a sentence like this, "When the big dog barked, the little kitten started to shake and rolled up into a small ball on the ground." After the child reads this, we may ask, "When did the little kitten start to shake?" "What did she do next?"

This, of course, is an essential but low level of comprehension. It is a level which asks the child to tell us precisely what the author said; however, the reader must be able to do this before he can go on to more advanced levels.

Using the same sentence, now, let's go to the next level. This is the level of determining what the author is implying —what he is trying to say to us "between the lines" without actually stating it. In this sentence he expects us to make several implications. He is strongly implying, without actually stating it, that the kitten is frightened. He implies that a barking dog will cause a kitten to be frightened. He implies that the kitten is rolling into a small ball to protect herself. None of these are actually stated, but, as mature readers, you probably made all of these inferences just as the author intended.

The young child, however, needs to be taught to make inferences, and so we ask him, "Why do you think the kitten started to shake?" and "Why do you think the kitten rolled into a small ball?" This is a level beyond the mere precise decoding of the author's sentence and another necessary step toward critical reading.

Let's go to the next level now, the level of critically analyzing what the author says or implies, and use the same sentence for our example. Here we call for judgments about the author's thoughts rather than merely determinations of what those thoughts are. For example, we might ask the child, "Do you think that a kitten would shake when she heard a dog bark?" "If a kitten was scared by a dog's bark, do you think she would act the way this kitten did?"

Here we use the child's ability to comprehend, but we are going beyond that and asking him to make judgments about the feasibility of what the author states and implies. We are asking for critical analysis rather than mere acceptance.

Many opportunities arise for promoting critical evaluation in the classroom. If we understand critical reading and we believe in its importance, we will seize these opportunities as they arise. Beyond this, however, we can take direct steps to nurture and teach this ability.

Promoting Critical Analysis

We can, arbitrarily and for convenience only, examine procedures for promoting critical reading ability under two headings. One of these involves general classroom procedures and the other concentrates on specific, planned techniques.

General Classroom Procedures. Under the heading of general classroom procedures, it is impossible to overestimate the importance of using a variety of sources for information rather than relying entirely on one which serves as the sole authority for whatever its topic may be. My friends in social studies and science tell me that most of the classrooms they visit still use a single book as the sole source of content in each of those areas. When the children study natural resources, for example, their views on water usages are derived from *the* book. They seldom hear the views of an ardent fisherman compared with those of someone who works for the state conservation department. They seldom compare the facts that can be presented—even at a primary level—about the effects of dumping sewage into a stream with the sewage that they can actually see being funneled into almost any stream they visit. They read in *the* book that water floats logs and, under certain circumstances, that it can be used to generate electricity. Then they go on to the next chapter.

I am not suggesting that very young children can critically analyze in depth the problems that beset our society. I am suggesting that they must have a chance to compare, to analyze, if they are going to have a foundation for critically analyzing anything at more mature levels.

The important characteristic of the classroom is an atmosphere where children are encouraged to explore and reach decisions for themselves rather than an atmosphere in which children are viewed as dry sponges soaking up the flood of information given to them by the teacher.

So far, our exploration of critical analysis has tried to lead to two major conclusions. First, we have examined it with the hope that this analysis will lead you to recognize and seize incidental opportunities which will arise in your classroom. Second, we have suggested the importance of a classroom where children are required to explore information from various sources rather than rely solely on a single source.

Exercises for Children. Let's explore this now through some examples of specific exercises which you can use with children.

(1) *Statements of fact and opinion:* At an adult level, we are continually bombarded by written and verbal opinions which are accepted as facts by the receiver. The adult who reads one newspaper describing "our country's vacillat-

ing approach" may not know that his other newspaper which discusses "our country's consistent efforts" are both dealing with exactly the same approach. The difference is in the mind of the writer as he tries to make his opinions our opinions.

While we do not expect mature depth in the first days of school, we can begin building a foundation culminating in a mature citizen who can analyze for statements of fact and statements of opinion. At its very simplest beginnings, we start in kindergarten and first grade helping children distinguish between fact and fancy—between stories describing incidents which could have happened and others which are "making believe."

For example, here is a brief excerpt from a first grade story. "Willie was a little kitten. He did not know where to go. He wanted a home with a fire and a bed to sleep in. But there he was out in the cold with no home, no bed, and no fire."

Now, here is another first grade story from the same basal series. "Mrs. Blue called, 'Here kittens, why are you behind the box?'

" 'We don't like this house,' said one of the kittens. " 'There is no fire to sleep near.' "

A discussion of the second story after the children have read it, should go beyond just asking, "What reasons did the kittens give for not liking their new house?" In addition, discuss with children, "Do you think this story could actually have happened?" and, of course, the all-important, "Why do you think that?" And, "Why do you think the story about Willie could have happened, while this one must be make-believe?"

First grade children have a listening ability which far surpasses their ability to read those thoughts in print. Because this oral ability is closely aligned to, and serves as the foundation for, later ability to read, we can use it to provide a base for critical reading skills at later grade levels.

Try this with your young children. Say to them, "You know some of the things we read and hear are given as opinions. That is, they are given as what the speaker or writer thinks about something. Some of the other things we read and hear are given as facts. That is, the speaker is telling you, 'This is not just what I think; this is the way it is.' Let me show you how these are different. Listen, 'We can buy spinach at the grocery store.' Is that given as a fact—as a statement of something that is true? But suppose I say to you, 'I think that everyone should eat spinach twice a day.' Is that given as a fact or as somebody's opinion—what somebody thinks about somethings?"

Your first examples of opinions should be so obviously opinion that everyone can agree that they are. These children have been taught for years that any words coming from adults are to be accepted without thought. While they haven't always done so, it may take them a little while to get the idea that we don't always expect them to blindly accept.

After you have once planted the seed of opinion versus fact, you and the children can devise other statements which are less obviously opinion. A discussion of these can provide invaluable groundwork for later efforts which will help these students make these essential distinctions as they read.

(2) *Recognizing assumptions:* Another essential ability for adult readers is the ability to recognize assumptions. Here is a brief, hypothetical, but rather representative passage. See if you can determine the assumptions that the author makes.

> *Since children in this country are at least three years behind those in most European countries in achievement, the need for educational reform becomes increasingly evident. As we search for the causes of the vast gap, we should look first at our teacher training institutions. The educationist's rejection of advice from his colleagues in academic areas is one reason. Professors of discipline areas who are concerned with what children learn should have a strong voice in teacher training.*

Now, let's examine some of the assumptions that the writer makes. First, the writer makes the unsupported statement that there *is* a vast gap in education. Such a statement, which serves as the basis for his following arguments, requires objective support.

Second, he makes the statement that educationists reject advice from their colleagues in academic areas. Again, this is glibly made but unsupported by the writer.

Third, he implies that educationists are not concerned with what children learn. This is a little more artfully hidden, but here, too, is an example of writing which denies the critical reading ability of the audience.

So what *does* the statement contain? Several unsupported statements cemented together with the opinions of the author.

We cannot expect a primary grade child to critically analyze such a statement as we should. We can, however, build a background which will ultimately lead to that ability. For example, in the upper primary grades you may approach it in this way with your pupils.

"Sometimes when we listen or read, we come across a statement which is supposed to be true and, from that, the speaker tells what will happen next. If the statement does not turn out to be true, then what is supposed to happen next may not be true.

"For example, listen to this statement which a pupil made, 'When mother lets me go to the store today, I am going to get a chocolate ice cream cone.' This child was saying that he would get a cone, but it really depends on whether it is true that his mother will let him go to the store. If he is mistaken about his mother's letting him go to the store, then the rest of the sentence will not be true.

"Often when we hear statements like this, we don't stop to think about them; but, sometimes, if we do, we can find the part that must be true before the rest can be true.

"Let's try a few of these just for fun. Listen, 'When Daddy gets his new boat next week, I'll go for a ride in it.' What part of that must be true before the rest can be true?"

You can make up other sentences which require the children to critically analyze assumptions. For example, "After I get the toy gun for my birthday, I'll play spaceman with you." Or, "Since I will stay up late tonight, I'll be able to watch Batman."

Of course, there are a number of unstated assumptions in such sentences. For example, in the last sentence, in addition to the stated assumption that the speaker will stay up late, there are the unstated assumptions that he has access to the television set and the right to determine which channel it will be turned to. Before pressing for additional assumptions, however, be sure that your pupils have taken the first basic step of recognizing the stated assumptions.

In addition to making up examples, you can locate assumptions in various materials that the children read. For example, in the 2^1 reader for one basal series, there is a story about Katy No-Pocket. You may recall that Katy, as her name implied, had no pocket to carry her baby, so she checked with other animals to learn how they did it. When she tried to carry her baby on her back like a crocodile, she made the assumption that he would be able to stay on when she jumped. Unfortunately for the slightly bruised baby, this proved to be a false assumption. Once children have developed the idea of what an assumption is, they can find many similar examples in the materials that they read.

While using the word "assumption" here, I have avoided using it in my suggested statements that you use with the children. Whether you do or do not use a word like "assumption" with your children must depend entirely on them. As a general guide, we should usually use such words when our pupils can be led to understand them. Words are the verbal tags for thoughts; and, if your pupils are mature enough to comprehend the general idea or thought behind noting assumptions, there is no reason that they should not have the verbal tag to apply to it.

B. UPPER ELEMENTARY LEVEL

1. Developing More Effective Readers

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As I VIEW THE activities in reading during the past year, and as I reflect on the frenzied attempts of teachers and administrators to meet deadlines for submitting applications for funds to implement reading programs, I wonder if perhaps we have not, in our preoccupation with criteria, materials, in-service training, and a dozen other deliberations, neglected the person for whom all of this activity is intended: the child in our classroom. I have participated in dozens of conferences with school districts that have attempted to meet deadlines, and I have sensed the frustration, concern, and disenchantment of those who have finally concluded that additional funds, additional materials, and equipment simply are not going to answer our fundamental curriculum questions as to what constitutes the most effective and efficient means of training a child to read. True, with additional funds we are able to reduce the size of classes in those instances where we can clearly identify economically disadvantaged children; it is also true that additional materials (and we have never before in the history of American education had so much to select from) will implement our teaching of reading; it is true that we are now in a better position to support in-service training of teachers. But, are we, except in rare instances, more clearly identifying the means by which we may do better teaching and the methods and techniques which may yield better results?

Are we going to be able, within a period of a few years, to furnish evidence that money, effort, and materials have resulted in better readers? It seems to me that we *must;* otherwise, we will have merely furnished additional evidence to those critics of our educational system who during the past decade have maintained that we are not teaching reading properly. We have responded to the critics and listed overcrowded classrooms, mobility of children, undertraining of teachers, and lack of sufficient funds for materials and equipment as reasons for the problems which we admit do exist in the teaching of reading. Are we, now that we have additional funds for solving those particular problems, in danger of becoming complacent and continuing to overlook the basic problem of pedagogical and psychological factors that may contribute to improved reading programs? Certainly we are in a better position to foster research, to encourage innovations in methods, materials, and classroom organization. We can and we must examine more thoroughly than ever before exactly what it is we mean when we speak of developing more effective readers.

What are we referring to when we speak of efficiency and effectiveness in reading? Perhaps we can begin to explore this by describing what I believe is an effective reader.

The effective reader is one who has mastered the skills of attacking words, simultaneously employing phonics, structural analysis, and syllabication to the point of having established a broad sight vocabulary and using those skills judiciously each time he encounters a new, unfamiliar word. In the beginning, the reader employs all of the cues available to him; as he becomes more efficient in attacking words, he deliberately reduces cues. Word attack skills are virtually at the sub-conscious level, except for those times when the reader must consciously summon his knowledge of analysis and use his skills to pronounce and gain meaning of new words. We need to know, through careful research, what contributions can be made to word analysis skills through linguistics, programed learning, non-traditional orthography, and other means that have not been thoroughly explored. We agree that word-calling is the basic step in the spectrum of reading skills; however, it is so easy to be misled by efficient word-calling and to assume that if the child has that skill, he is a good reader.

The word-caller becomes a more effective reader when he applies his skills of word analysis to the development of a rich and varied vocabulary and experiences through reading of a wide variety of materials the range and quality of word power. He examines the multi-functions of words, thrills at the author's choice of words that uniquely communicate time-worn ideas and make them startlingly new and provocative. He pursues the rich and varied histories of words as they have been used to relate the evolution of ideas; and he perceives language as a rich fabric into which good writers artfully weave their sensations, their perceptions, and their concepts.

There have been hundreds of articles written about the development of vocabulary, but how many of these articles have we translated into classroom practice? Are we not, as teachers, guilty of too much emphasis upon the synonomy and denotations of words, simply because of convenience? What are we doing to acquaint our children with the historical aspects of language and semantics? Are we engendering in our classrooms a sense of excitement and wonder about what language can do for and to the lives of our children?

As early as 1917, Thorndike published his study of the ways in which children may misinterpret what they read. He pointed out that the reader becomes so preoccupied with the overpotency of certain words that he misses the message of the writer. Russell's more recent study of children's thinking has underlined Thorndike's original thesis. The reader who reads with a purpose employs thinking and can calculate what is relevant or irrelevant to his purpose. He sees not only the obvious, surface meaning of what he reads, but he plunges below and searches out to the periphery of what he reads. He assumes that he must bring to the printed page both experiences that have been directly gained and those that have come from vicarious sources. He demands that the printed page say something to him and sets aside his own judgment until the author has been granted a full hearing. He does not focus on details alone, nor is he content to identify the main idea unless he understands and sees details in relationship to the main idea. The types of questions which are asked by the teacher may determine whether the child develops habits of inquiry as he reads. If questions are posed which require nothing more than a return-in-kind of the author's statement, only memory, and not thinking, is encouraged.

Using his past experiences as a touchstone, the efficient reader evaluates what he reads. He responds creatively to the author; he has a choice of imitating what the author has said or taking the ideas and modifying, supplementing, or rejecting them on the basis of his own past experience and knowledge. Using his experiences occasionally as a basis for a real argument with the writer he assumes the responsibility of setting up a conversation with the author. Sometimes the inexperienced reader fails to grasp the significance of what a writer has said because he is not skilled in reading between the lines; he reads literally what is clearly stated and fails to realize that the author has implied ideas that he assumes the reader should be able to grasp. Many of the materials which have been developed to aid children in becoming more evaluative fail miserably in providing the proper stimulus. For the sake of convenience, questions can be answered with a word or two, or by a selection of alternatives. The child is not faced with the problem of "digging out" on his own the ideas expressed by the author. In the final analysis, the child should be able to answer such questions as "What ideas does the author express that modify or support my thinking?" "What have I learned from this selection that gives me broader understanding of the topic?" or "What, precisely, does reading this selection mean to me?"

The effective reader is one who disciplines himself to read with the whole intent of his mind. He realizes that true reading is more than a cursory encounter with ideas; he approaches each act of reading with the full intention of gaining something, whether it be pleasure or information—two categories that need not be mutually exclusive. In the average home or school, the child must select among many media for learning; he must learn to shut out the cacophony of the television, the radio, conversations and discussions of fellow students and family members, and other extraneous noises in his environment in order to give full attention to a book. A critical factor in good study skills is overcoming distractors that pull one from the reading act; the book offers one advantage that other media of communication do not: one may return again and again to the book, in all types of situations, and find it unchanged. Further, with the book the reader may set his own pace; he may, in the words of Browning, "plunge soul-forward, headlong into the book's profound." The reader may establish a personal relationship and a conversation with an author that may be maintained throughout a lifetime.

The effective reader is one who becomes increasingly sensitive to the styles of the writers he meets. He learns to judge good writing and to reject writing that does not meet the standards of his own choice. He senses the color, the tempo, and the tone of good writing. Through reading all types of literature—the good and the bad, the mediocre and the outstanding, the contemporary and the classical—he may establish for himself the standards by which he might judge excellence. Our job as teachers is to introduce the child to all types of literature and to guide him in developing judgment. Critical reading is frequently an individual, not a group, process. However, the young reader should have countless opportunities to discuss his ideas with others, under the careful guidance of a teacher whose lessons are problem-centered. The teacher sets the pace, provides the opportunities for problem solving, and frequently asks the questions. But, if he is to become a critical thinker, the student must ask his own questions and seek his own solutions. He must learn that there are no easy solutions to great problems; he must be led to examine hidden assumptions, to evaluate the logic of writers, and to suspend his judgment until all of the facts have been gathered. Having arrived at this point, he should learn that there are no prescribed boundaries, no real terminal points for most learning. The solution of a problem, offered by one writer, should lead the young reader to a consideration of alternatives that will require reading the works of other authors and engaging in more thoughtful research.

The effective reader is one who regards speed of reading as a mere convenience for doing more reading, rather than as an end in itself. He has learned to adjust his rate of reading to the purposes for which he reads, to the familiarity of the content, and to the very nature of the writing itself. He knows that there is no one acceptable rate of reading that will sustain him in all of his reading; he is content to read some things with the speed of the wind, while at other times he reads with deliberate attention to each word, each phrase, each sentence, with no regard for the time consumed in reading the selection. He is much more concerned with the number of ideas per page than with the number of words per minute.

The effective reader learns to read to remember. He learns to file, to retrieve, and to refile information with ease. He becomes systematic in the search for knowledge. He extends his reading skills to gathering information, organizing information, and reporting information accurately. Through skillful organization and assimilation of ideas, he develops good learning habits for remembering what he has read and being able to associate what he has learned with new ideas.

The effective reader reads widely and frequently. He applies his skills throughout the day to all areas of the curriculum. Through the years he will associate with the greatest minds of all generations. Through reading the works of men and women, he associates with people who are wiser and more experienced than he. His young mind stretches toward adulthood and anticipates the role that he may eventually play in his own adult life.

These, then, are some of the ideas concerning the goals we are seeking in improving our reading instruction for developing more effective readers. How clearly the child sees these goals will depend upon the skill of the teacher; money, materials, equipment, and classroom organization *may be* the means by which the teacher and the child more efficiently achieve these goals.

2. New Approaches to Teaching the Study Skills

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NO MATTER HOW high we carry the banner of education as a profession, the criticism that educators get lost in a maze of terminology is well founded. Such is the case when one considers the use we make of the term "study skills."

The word "study" is defined as "the effort to learn by reading or thinking; a careful examination; investigation; deep thought; reverie; to think out; to think intently; meditate."

The word "skill" means, according to lexicographers, "ability gained by practice and/or knowledge; expertness." Common synonyms are "facility" and "proficiency."

In the literature on this topic, one finds, for the most part, listings of various approaches to locating information on a topic; evaluating what is found in terms of accuracy and usefulness; selecting and organizing related ideas, often in complex patterns, so as to achieve a given purpose. These purposes range from gathering a body of information and sensing implications to developing generalizations and forming judgments.

Few writers have taken into consideration the basic abilities essential to successful performance of any of the above tasks. However, we are not in total darkness. During the past few years, reference has been made to the urgent necessity for a re-examination of the term "study skills" and a fresh approach to the problem of helping boys and girls develop efficiency in performance. As early as 1952, Arthur I. Gates opened this question in an address to the New England Reading Association when he said:

> In summary, learning in the content subjects involves certain basal reading skills arranged in various combinations, adjusted to a particular purpose and operating under a general strategy of attack. . . . Success in the content subjects depends greatly upon the ability to read selectively and to think critically during the process of reading.[1]

Let us go back to the definitions of "study," each of which emphasizes thinking. Two significant questions are implied in these definitions. First, "What is reading if not a thinking process?" Second, "Should we not teach boys and girls how to think before we plunge them into situations where command of intricate thinking processes is essential to successful performance?"

Consider the first question, "What is reading if not a thinking process?" Tinker and McCullough define reading thus:

> Reading involves the recognition of printed or written symbols which serve as stimuli for the recall of meanings built up through past experience, and the construction of new meanings through manipulation of concepts already possessed by the reader. The resulting meanings are organized into thought processes according to the purposes adopted by the reader. Such an organization leads to modified thought and/or behavior, or else leads to new behavior. . . .[2]

Others have defined reading with emphasis upon the thinking processes involved. As early as 1930, John Dewey warned that readers who had not learned to judge, discriminate and choose were prepared only for "new modes of intellectual servitude." Last year, in Detroit, Russell Stauffer urged his audience "to prepare pupils to think critically about ideas presented in reading material by teaching reading as a thinking process."

From the very first step of word identification to the final reaction to established meaning the act of reading requires rapid-fire mental operations using combinations and interactions of a variety of reading and thinking abilities. The final test of a skillful reader is that he be able to think as he reads and thus broaden his vision, quicken his senses and lift his spirit.

Now, to the second question, "Should

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[1] Arthur I. Gates, "Reading Abilities Involved in the Content Subjects," *Readings in the Language Arts*, edited by Verna D. Anderson and others. New York: Macmillan Co., 1964, 350-364.

[2] Miles A. Tinker and Constance McCullough. *Teaching Elementary Reading*. New York: Appleton-Century-Crofts, 1962, 13.

we not teach boys and girls how to think before we plunge them into situations where command of intricate thinking processes is essential to successful performance?"

Read the how-to-study handbooks. Examine the suggestions for study in currently used textbooks. Observe the classroom teacher in action as she makes "package" assignments, reduces reporting-and-discussion periods to question-and-answer sessions, and evaluates learning with tests on facts the pupils can recall. Memory—the lowest level of mental activity—dominates the entire situation.

Ideas presented by Russell in his scholarly treatise, *Children's Thinking,* should be the base of operation for every classroom teacher. Each experience planned to promote study and learning should be analyzed in terms of the opportunities offered the child-learner to engage in thinking activities. In the early school years, or even before he enters school, the child should experience *planned* perceptual and associative thinking. Recent experiences of this writer working with culturally deprived children have opened new vistas of opportunities for these experiences in the Headstart Program.

Encouragement of curiosity and inquiry lead to discovery; thus, new concepts are developed and old ones expanded. Gradually, the child's mental machine becomes synchronized and he develops the momentum necessary for problem solving. Here, he must weigh each idea, comparing, contrasting, judging—as he searches for the truth. This critical-thinking experience leads him to the highest level—the creative phase. Now, he is ready to push forward on an individual basis.

In *The Mature Mind,* Overstreet described this process as follows:

> The building of a mind can begin in earliest childhood and can continue throughout all the young years. It requires simply that we accept the fact that a mind functions when it makes its independent estimate of things; draws its own conclusions. . . . Most of what we have been accustomed to call education has been chiefly an enlisting of the memory. Building a mind means confronting it with problems to be solved; letting it search out the relevant evidence; letting it learn to weigh this evidence, come to a conclusion and test that conclusion. The whole process is worlds apart from the mere acceptance of statements on the say-so of textbook and teacher. (pp. 251-254)

The miracle of the human mind is that, given the right fuel, it functions. Children want to know until the school environment completely squelches their curiosity. At the very time that intellectual curiosity should be increasing, our children lose their zest for inquiry, exploration, and experimentation.

They must have constant refueling to stimulate curiosity and opportunities to seek the truth which is the outcome of a healthy skepticism. Free-wheeling intelligence is the result.

What are the implications for the teacher? Her problem is to protect the spirit of inquiry, to find a balance between over-stimulation and dull routine, to avoid "pat answer" situations and meaningless emphasis on trivialities.

The classroom environment must reflect the dynamics of democracy in teaching: cooperative planning to establish purposes, task involvement, and faith in and respect for individuality.

In summary these five suggestions seem to be important:

1. *Develop the arts of the mind—curiosity, inquiry, skepticism, discovery, and imagination.*
2. *Focus on the thinking processes necessary in study-learning activities.*
3. *Use pupil-teacher planning to pinpoint present knowledge and to establish purposes for further reading and study.*
4. *Free discussion periods from restrictions to critical and creative thinking.*
5. *Become a master in the art of teaching by developing skill in use of leading comments or questions to guide a child's mind as he moves toward discovery of a new idea.*

There is nothing new about any of these ideas, except perhaps to a few individuals. However, constant refinement of teaching techniques does produce fresh approaches and new insights into the learning problems of children.

C. SECONDARY LEVEL

1. And Beyond the Lines

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ONE OF THE MAJOR responsibilities of today's teachers is teaching reading as a thinking process, teaching children to think as they read. For it is the thinking reader—the critical reader—who has the foundation for evaluating what he reads. In discussing the building of this foundation, we may begin with Helen M. Robinson's reminder that "critical reading is based on, or is an instance of, critical thinking."[1]

Edgar Dale defines critical thinking as "thinking which has been systematically criticized," as "the kind of sustained thinking necessary to deal adequately with such questions as: . . . 'How can I improve my teaching?' "[2] It leads to the kind of reading that asks such questions as, "Should Antigone have been loyal to her dead brother, Polynices, or to her country?" And what does this play have to do with my life today? And why is it considered a "classic" anyway?

Mortimer J. Adler, in *How to Read a Book*, describes the kind of reading necessary to produce this kind of thinking:

> When [people] are in love and are reading a love letter, they read for all they are worth. They read every word three ways: they read between the lines and in the margins; they read the whole in terms of the parts, and each part in terms of the whole; they grow sensitive to context and ambiguity, to insinuation and implication; they perceive the color of words, the odor of phrases, and the weight of sentences. They may even take punctuation into account. Then, if never before or after, they read.[3]

We might summarize his delightful description by saying that critical reading—whether it involves reading a news story in the morning's newspaper or a masterpiece by Nathaniel Hawthorne in the school textbook, or a love letter—should involve three levels of comprehension.

Reading the lines:
WHAT DID HE SAY?
Reading between the lines:
WHAT DID HE MEAN?
Reading beyond the lines:
WHAT GENERALIZATIONS MAY BE DRAWN?
WHAT EVALUATIONS MAY I MAKE?

As we are concerned with teaching these levels of reading in all types of literature, we are, of course, actively engaged in teaching critical reading of literature.

We must begin with what we might call the facts—the words in the sentences, the sentences in the paragraphs, the paragraphs in the work of literature. What do they say? To teach critical reading, we must have a passion for accuracy. One day, a child in a teacher's class read the word *home* as *house*. The teacher's first reaction was to ignore the substitution; it was such an easy error to make. Then she realized that *house* had few of the rich connotations of the word *home* as it was used in the story. By misreading the word, the child had been unaware of some of the "facts" of the story. A whole point would have been lost, the teacher who told this story reported, had she accepted the child's substitution. Every teacher has had similar problems, enough to convince each of them that reading of literature—reading a poem by Frost or a short story by Hemingway—begins with reading the words, the phrases, the sentences as the author wrote them—reading the lines.

The second level of comprehension becomes possible only when we have mastered the first. A student can read *between* the lines only when he can *read* the lines. What did the author really mean? What inferences may be drawn? What is Emily Dickinson really saying when she speaks figuratively? Why does Shakespeare begin *Julius Caesar* with the scene that he does? Why does e. e. cummings call the balloon man "goatfooted?" Why? Why? And for every answer there must be proof in the literature itself. It's easy to see how developing this level of comprehension is, in effect, developing the ability to think critically about what is read; in other words, to read critically.

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[1] Helen M. Robinson. "Developing Critical Readers," *Dimensions of Critical Reading*. vol. XI, Proceedings of the Annual Education and Reading Conferences. Newark: University of Delaware, 1964, 3.

[2] Edgar Dale. "Teaching Critical Thinking," *The News Letter*. vol. XXIC, No. 4. January 1956.

[3] Mortimer J. Adler. *How to Read a Book*. New York: Simon and Schuster, Inc. 1956, 14.

Finally we must teach reading beyond the lines. How do I evaluate this story, this play, this poem? In the *Texas Curriculum Series*, the Commission on English reported that the reader must learn "that *no* evaluation [of a work of literature] is permissible (or indeed, possible) until a work has been understood."[4] What was said? What does it mean? Finally, what is it worth? As William S. Gray said, "One of the first tasks of a teacher is to encourage students to withhold judgment until they are sure they fully understand the book or selection read."[5]

The student can move to the third level of comprehension only after he has moved successfully through the first two.

John Simmons wrote in an issue of the *English Journal:*

> Teachers require a series of reactions to the literature read, both in speaking and writing. In this they are asking for critical reading, a task which should be central to reading assignments in all secondary content areas. Students must go beyond mere passive acceptance, or comprehension; [in other words, beyond levels one and two] they must do something with what they read. In evoking a critical response, teachers are moving students toward more *mature*, sophisticated reading activities.[6]

Everyone, it seems, tells us to teach critical reading, but very few writers tell us *how* to go about that job.

We begin, according to Anne Stemmler,[7] director of the reading-study center at the University of Texas, by selecting material, literature in our case, within the experiential background of our students. To expect a junior high school student to read Eliot's *Waste Land* critically is to expect the impossible. He may learn to parrot our reactions to and judgments of such literature, but he cannot, on his own, read critically literature so far beyond his realm of experience. Once appropriate selections have been made, Stemmler continues, the art of teaching critical reading next involves the art of asking questions.

To teach comprehension in depth, she tells us, we must develop the ability to ask questions that send the students into successively deeper levels of meaning. "Ask low level questions," she maintains, "and you teach low level comprehension." The twin arts of question design and progression are among the most critical aspects of teaching deep-level comprehension. Our sequence of questions may begin with questions that ask for mere recall:

What does the author say?

In your own words describe how the main character looked.

But our questions must soon progress beyond this level into the non-literal:

What does the author mean?

What does the main character symbolize?

And, finally, to encourage real depth of understanding, our questions must lead the student into generalizing, into evaluating, into applying what he had read in other situations. Once we have designed our questions and planned their progression, our task of *teaching* critical reading has really just begun. Now, according to Stemmler, we must analyze our questions for the demands they make upon the reader. What reading-thinking abilities are evoked by each?

Level-one questions cause little trouble. The student is being asked simply to recall information read, or to search through the material for specific information given. Our students may do these tasks with ease. And when they do, they're ready to move into the more difficult, non-literal, level-two. Here even our high school students may require much help. Just exactly what does a student do to find meanings which are implied? Of course he brings into play the basic processes of recalling and searching. But beyond these tasks he must analyze, synthesize, and extend meanings. In teaching the student to handle these tasks, a teacher may well begin by sharing with a class the steps through which she has gone in arriving at implied meanings—a difficult job for most teachers read easily, and the easier the job the harder it is to explain to someone else exactly how it was done. But what an important learning experience this can be for the students. The teacher might take a short piece of literature, familiar to the class, and show them *how* she read it: how she analyzed it, categorizing the kinds of incidents, images, words used; how she drew together—synthesized—the information collected; how she generalized about what it all added up to, what it really meant.

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[4] *Texas Curriculum Studies.* Report of the Commission on English Language Arts, Report No. 2. Austin: Texas Education Agency, July 1959, 47.

[5] William S. Gray, "Increasing the Basic Reading Competencies of Students," *Reading in the High School and College.* Forty-seventh Yearbook of the National Society for the Study of Education, Part II. Chicago: University of Chicago Press, 1948, 107.

[6] John S. Simmons, "Teaching Levels of Literary Understanding," *The English Journal*, Vol. 54, No. 2, February 1965, 101.

[7] Anne Stemmler, In seminar at The University of Texas, Spring, 1966.

The students are given opportunities to go through these same processes. Over and over on literature well within their range of experience and ability. They learn to analyze, to synthesize, to extend. And as they are learning we are constantly aware of their successes and failures.

Only when understanding of the work seems assured, may we move to level-three questions, those calling for further generalizing and evaluating, for applying insight gained from reading in new situations. Additional cognitive processes are involved here. The students must now compare, contrast, extrapolate. He must hold in mind a set of criteria and measure the work being read against that criteria. Weighing, testing, trying out ideas, he may need to apply what is in one situation to other situations. He may need to call to mind other works of similar theme or style. He may need to move beyond the specific to the general.

To help students arrive at this point as readers, we need to lead them to formulate their own questions and to seek their own answers:

What does the title tell me about this story?

Why does the author begin as he does? End as he does?

From whose point of view is the story told?

Is this point of view significant?

What ties the episodes of the story together—the characters? the action? the setting? a stated idea? an implied idea?

What does every important detail of the story add up to?

What may the central theme(s) be?

What evidence in the story supports the generalizations I am making?

Questions such as these send the student to the story itself, not to a summary of the author's life or to a headnote in a textbook. The critical reader must ask and answer questions such as these. For only after asking and answering these and other questions may the student evaluate the story. And only as he learns to form valid judgments based on reading not one, not two, but dozens of stories, does he truly mature as a reader.

There are still other experiences basic to teaching our students to read critically. Somehow we must free them from the idea that everybody must have exactly the same response to and interpretation of a work. They do *not* have to admire every poem we admire, or to read many of them in just the same way. As we all know, but somehow our students don't seem to, there's evidence in most works to support more than one valid interpretation. We must help them to understand how their backgrounds and experiences, different from everybody else's in the class, will partly determine how they respond to some works. A simple exercise like one used by Allen Briggs, professor of English, Sul Ross State College, is applicable here. He has his students read Carl Sandburg's *Fog* and then draw a sketch of the cat they see in the last sentence. Of course we know that our students can read this poem, can read the lines and between the lines, and beyond the lines, and still come up with different pictures. That a cat is a cat is a cat is not for our students—all of whom have known different kinds of cats and who consequently react to them in different ways.

Everything that we've said so far has assumed that our students can, at least, read the lines. But what about the retarded reader and critical reading? George Spache, at the Texas Association for the Improvement of Reading meeting in February, 1966 told a group that the retarded reader, particularly at the upper grades, may lack the word attack skills. To expect him to move into reading levels two and three—to read critically—before he has mastered level one is unrealistic. Much modern literature on the teaching of the educationally disadvantaged student suggests that the teacher read aloud or present by tape, record, or other audio-visual media some literature within the interest and experience range of the student, but beyond his present reading skills. His ability to think critically, a prerequisite to reading critically, can be fostered by encouraging discussion about, and reaction to, what he has heard. As his skill in reading increases, he can be led through the same carefully structured experiences in the reading/thinking skills that other students have had.

My final comments concern what effect teaching critical reading as a foundation for evaluation may actually have on our teaching—at the seventh, eighth, or ninth grade, or at whatever level we teach.

First, if we are really using literature to help our students to read critically, then we may have to change some of our present practices. Such reading of literature as described here implies thoughtful study, careful study, prolonged study. That kind of study, of course, means the studying of fewer poems, stories, works of literature. Notice I didn't say reading fewer; I said *studying*. Our students may be reading dozens of pieces in and out of class which we won't *study*. No longer must we think in terms of covering an entire anthology. We must be selective. For class study, we must severely limit the number of selections we teach. Thus, the first result of teaching critical reading of literature will be—paradoxically—to teach "less" more! In other words, to emphasize depth reading, not surface reading. And it means this at all grades. Jerome Bruner says that "intellectual activity anywhere is the same, whether at the frontier of knowledge or in a third-grade classroom. . . . The difference is in degree, not in kind."[8] For our purposes we may take that to mean that the seventh grade student may be taught to read in depth just as the twelfth grade student is taught. What will be different will be the kinds of materials with which we teach him the process of close reading, of critical reading. The works of literature will be appropriate to the maturity level of the students.

A second consideration: these fewer selections, more closely read, will be taught in a different way. The critical reader is, above all else, an *independent* reader. To develop such a reader requires inductive teaching more than deductive teaching. The kind of teaching which asks questions which encourage students to seek answers. As one writer says, more draw-it-out teaching and less pour-it-in. The kind of teaching, as G. Robert Carlsen has said, which stimulates the student to teach himself. Such teaching is of necessity a slower process than the one most of us were taught by—the teacher or the textbook gave us the questions and told us the answers; our job was simply to memorize what we were given. In developing independent, critical readers, we must help students to "build [their] own meaning—[their] own understanding and appreciation—to ask and answer [their] own questions,"[9] as Mac Klang has suggested. We must encourage more student involvement with the work of literature. Students must have time, he added, to think and feel about the pieces they read, time to voice those thoughts and feelings. In this kind of teaching, a class may spend a day, two days, a week discussing a single short story or poem. What we are teaching here is not a short story or a poem but a *process* of reading a short story or a poem which the student in turn will, on his own, transfer to other short stories and poems; habits of reading which the student will carry with him long after he has forgotten the specific pieces of literature which he studied in school. Bernice E. Leary was saying as early as 1948 that "guiding students in the technique of novel-reading should ultimately supplant novel-teaching."[10]

This brings up another problem. Examinations which simply test students' recall of specific works of literature may no longer be valid if we are more concerned with habits of reading than with the works read. We need to use the technique of the *End of the Year Examination*[11] in which students are given an unfamiliar piece of literature and then asked questions about it.[12]

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[8] Jerome S. Bruner, *The Process of Education*. Cambridge: Harvard University Press, 1963, 14.

[9] Mac Klang, "To Vanquish the Deadliest Game: A New English Curriculum," *The English Journal*, Vol. 53, No. 7, October 1964, 509.

[10] Bernice E. Leary, "Reading Problems in Literature," *Reading in the High School and College*. Forty-seventh Yearbook of the National Society for the Study of Education, Part II. Chicago: University of Chicago Press, 1948, 143.

For example, at the end of a unit on poetry, our test may be to give the students a short poem, similar to those studied but not from that group. Our questions about the poem will demand that the students apply the reading skills they have been learning.

We'll ask questions about what was specifically stated and what was implied; and we'll ask about the meaning of the whole, and the meaning of the parts; and we'll ask for generalizations and evaluations possible only after thoughtful reading and rereading and reading again. And over and over we'll say, "Give examples. Cite your proof. Refer to specific words and lines."

How do we teach our students to evaluate what they read? We begin by teaching them to be critical readers, readers who weigh and consider, readers who *think* as they read.

2. Developing Reading Skills Demanded by Content Subjects

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IN SEPTEMBER, 1963, a Project English Demonstration Center was established in the Jamesville-DeWitt Junior-Senior High School in DeWitt, New York. Funded by the U. S. Office of Education and sponsored by Syracuse University, this Center was established for two purposes: one, to produce a series of motion pictures, directed to teachers, which would present the organization and operation of a secondary school reading program. Particular emphasis was to be given to the problems of teaching reading in content areas. Each film was to be accompanied by a manual which would provide for reaction to the concepts presented in the film, would suggest activities through which the principles presented could be applied in the viewers' own classes, and would present sample materials used in classrooms in the Demonstration Center. The films and manuals would eventually serve as the basis for in-service education programs in schools not having recourse to university personnel to conduct such courses in their districts.

The second purpose of the Center was to establish a secondary school reading program which would give particular emphasis to the teaching of reading in content areas. Personnel from other secondary schools or from universities would come to the Center to see a program of this type actually operating in a public school situation.

The ten films have been produced, as have the ten manuals. The series is now being field-tested in six junior-senior high schools in New York State. Based on this field-testing, the manuals will be revised and printed in their final form.

It is too early to report on the effectiveness of the film series as the basis for in-service education, since the field-testing has not been completed. However, it is possible to make some observations concerning the work with the faculty in the Center as well as in other schools, work which is related to "Developing Reading Skills Demanded by Content Materials."

In working with secondary school faculties we have found it necessary to clarify errors in their thinking about reading instruction, remind them of principles of instruction which they may have accepted in theory but not in practice, and explore methods and materials by which they can teach students in their own classes how to read what they are required to read.

Clarifications

The major clarification concerning reading instruction in secondary schools is related to the cliché, "Every teacher a teacher of reading." Those of us who are acquainted with the field of reading say this to one another as a form of hopeful encouragement and we think we know what we mean. However, when we say this to secondary teachers of various content areas, we threaten them because they do not know what we mean. Their concept of reading instruction is shaped by observing reading teachers work with students who have demonstrated deficiency in the use of specific skills. They conclude that we want them to set aside time from the study of their curriculum and use it to give instruction in reading. They recoil at the idea of devoting part of their limited time to such purposes. They do not perceive the critical difference in reading instruction which distinguishes their responsibility from that of the reading teacher. The reading teacher concentrates on skills development and is not concerned about the content being used as long as it serves to develop and provide practice on the skills being emphasized. The content teacher, on the other hand, is concerned primarily with the content of the material being read. He gives attention only to those skills which are essential to the understanding of the selections he assigns. His reading instruction is functional. He does not provide for reading instruction outside the context of his curriculum and its required materials.

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[11] *End-of-Year Examinations in English for College-Bound Students, Grades 9-12.* A Project Report by the Commission on English. Princeton: College Entrance Examination Board, 1963.

[12] *Advanced Placement Program: Course Description.* Princeton: College Entrance Examination Board, 1964, 66.

When clarification is given to the responsibility of the content teacher to provide reading instruction, and when he is shown how to provide this instruction, a great hurdle of reluctance is cleared. His job is not to focus on reading skills as the reading teacher does. Nor is his job to provide for isolated practice on specific subject related skills, practice which is unrelated to the unit of study under consideration, practice which is contrived and out of context. Rather, his task is to help his students read successfully the specific assignments that he gives in the text. He concentrates only on those skills that students need in order to read required assignments and only as they need that instruction. Skills are not taught in isolation. This makes possible the simultaneous teaching of content and subject related reading skills. One is not sacrificed to the other.

We do not seek to make every teacher a teacher of reading. Rather, we help each one become a proficient teacher of his own area. We show him how he can teach reading *of* his content materials, rather than suggesting that he is to teach reading *in* his subject area. Though some may think we are splitting hairs and perhaps playing with words, the clarification brings the desired result.

Reminders

There is the story—probably apocryphal—about the reading teacher who decided not to go to the Dallas convention. When asked why, she replied: "Well, I'm not teaching reading now as well as I know how. Why should I go there and learn more that I won't use?" Apocryphal or not, the story reflects the fact that all of us in education frequently need to remind ourselves of what we already know about teaching and make good use of it.

We have found this to be true when working with teachers at the secondary level and showing them how to teach the reading of their content materials. There are several principles of instruction to which they would subscribe in theory but not in practice. There are five which are particularly critical. We identify them as "Instructional Provisions" and suggest to content teachers that they should be present in all of their teaching.

First: provide for levels of ability and achievement. Lip service is given to serving individual differences. When a teacher has thirty students in a classroom studying U. S. history and has but one text—a common situation—does he provide for his students' range of ability and achievement? He should if they are all to learn as well as they are able. But how can this be done? Frustrations experienced in the attempt force teachers to reject the principle as a noble theory but an impossible practice.

Second: provide for difference in learning rate. This is closely akin to the first, relating to individual differences. We know that even when students have similar ability and achievement levels—as measured by standardized tests—their rates of learning may differ considerably. Within the framework of the regular curriculum and using materials available to them, how do science teachers, for example, account for these differences among their students?

Third: provide for transformation of skills. As students move from subject to subject, they are met with a variety of reading demands. The variety is caused by the composition of the required material, not by each content area having particularly unique skills. Most of the reading skills which we can identify are essential to successful reading in all subject areas. However, in each area each skill has to be applied differently because of the composition of the materials to which it is applied. Students, therefore, need to learn how to *transform* skills as they move from one subject to another. Reading to draw conclusions—a sophisticated skill—is applied differently in mathematics than it is in social studies. Reading for main idea in narrative material in English class is much different from reading for main idea in a science text. How does the content teacher account for this transformation and assure it for his students?

Fourth: provide for concept formation and application. We find that much teaching at the secondary level fosters rote memorization and, consequently, students read primarily for detail. Many do not learn how to perceive relationships among the details, to formulate concepts. As a result, these students experience difficulty when required to use the information in a new context where the details they have memorized do not fit but where the concept represented by the details should be applied. Content teachers should show students how to develop concepts and apply them as they read and react to their required assignments. Again the question is, how is this done?

Fifth: provide for students' active participation in learning. This is one of the most critical provisions. One needs only to walk through the halls of a junior or senior high school any day of the week and any time of the day to find that in at least 80 per cent of the rooms the students are only passively involved in the learning process, with the teacher being the active participant. We know that when lessons are structured to involve students more actively in study and exploration of ideas, much more learning takes place. Lessons can be structured in this manner so students develop essential skills as well as important concepts. Intraclass grouping is essential; but since it is a traumatic experience for secondary teachers, this provision is frequently omitted from instruction. The question content teachers have is, again, "how?"

Methods and Materials

Content teachers do not need to be convinced that their students need help. They need more than reminders and clarifications. They need practical suggestions that have proven successful. To these they will respond. Methods and materials which we found successful at the Demonstration Center and elsewhere are presented in the film series.

We show teachers how to analyze their assignments to determine the skill or skills that should be emphasized by students as they read the text. We show them how to prepare students for a reading assignment by establishing purposes for reading and, particularly, by giving direction in the application of the essential skills. Then we show them how to construct reading guide materials. These guides help students apply skills in such a way that they are conscious of the process involved in the skill and are also aware of the concepts being developed and applied. These guides are so constructed that, in one class, students can react to the same material at different levels of comprehension, thereby serving the levels of ability and achievement represented in the class. We show teachers how to graduate the level of difficulty of their questions and guides so students apply skills at increasingly sophisticated levels.

We show them how to use the guides to develop independence in learning. The guides are also designed to serve as the basis for reading to and discussion of the major concepts of the unit being studied. This makes possible more active participation on their part.

Summary

Developing reading skills demanded by content subjects is primarily a matter of making practical application of substantiated theory. Even as we have to show students how to develop and practice new learning skills, we have found that we must show content teachers how to develop and apply new teaching skills.

We have test evidence to show that when content teachers make the above provisions a part of their teaching, students' learning increases significantly. It has been my pleasure to see teachers from the Center give workshops in schools and to find them both enthusiastic and articulate about their experiences in teaching their students the reading skills demanded by their content material. This is the kind of evidence that brings pleasure: enthusiastic endorsement by teachers and improved competence of students.

D. COLLEGE LEVEL

1. Reading Demands of College Study

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THE CONTINUED existence of college reading improvement programs bears witness to the interest colleges and universities have in the reading abilities of their students. Despite support for such programs and a respectable volume of research on college reading, however, much needs to be learned about the day-by-day reading behavior of college students. This paper reviews certain selected reading problems typically faced by college students.

Generally, one of the most significant hurdles faced by the typical college student is the problem of dealing with an increased volume of reading. Although there exist on most campuses myths about a student who gets through college without "cracking a book," it seems reasonable to assume that most students read a greater number and variety of materials than they have previously read. Typically, the majority of the student's reading is concentrated in the areas or subjects he studies. Moreover, there seems to be some evidence that many college students devote little time to reading newspapers or periodicals during the school year. It seems safe to assume that for the typical student, his major reading time is spent in trying to master the facts and details presented in his basic text and collateral readings. Hopefully, he also derives certain generalized principles as well. In all likelihood, the student will encounter a number of professors who blithely assume that he can read the assignments without assistance. College reading specialists, of course, are well aware of the limitations of this assumption.

The college textbook as an instructional medium often leaves something to be desired. Typically, it is expensive, voluminous, highly redundant, crammed with facts and details, replete with tables, graphs, and charts, and resplendent with footnotes and citations. Although it undoubtedly is a canard, it has been alleged that college texts are sometimes written to attract the eye of the professor who selects it rather than for the student who will study it. Regardless of such facetious comments, however, the typical college text contains fewer study guides, self-help exercises, and comprehension checks for reinforcing learning than is evident in most elementary and secondary school books. Similarly, it is evident that most authors and publishers of college books devote less time and money to the development of instructional manuals of the sort generally provided at other instructional levels. Most manuals which accompany college level texts appear to consist mainly of sample objective test items and lists of additional references. Rarely do they contain discussions of goals, desired outcomes, or means for developing stimulating lessons. The reading problems of the student also are compounded by the widespread practice of assigning chapters or numbers of pages to read.

In fairness, it should be noted that it is extremely difficult to write a good introductory text in most college subjects. The author is faced with genuine problems in covering essential topics and providing supportive fact and detail, without making the work unrealistically long. If the author omits certain topics, he will be criticized severely. If he covers all of the topics he feels are important, his book becomes expensive, ominous, and foreboding. As a result, many authors deal adequately with certain topics while covering other topics in a more piecemeal, allusive, and fragmentary way. Many college students have difficulty in comprehending such topics because of inadequate experiential backgrounds. Many examples could be cited to illustrate this dilemma. A few may suffice. An undergraduate text in educational psychology discusses Guilford's highly abstract theory of intelligence in two paragraphs. A text in history discusses the rise of unions in one page. A child psychology book treats growth and development intensely without making it clear that the growth curves depicted are averages rather than typical patterns. The increased availability of inexpensive paperbacks which focus on one topic may offer some help in the future.

A somewhat different reading problem of the college student also is worthy of comment. College study sooner or later requires the student to make use of the college library. It is a rare student who is proficient in finding his way around a large research library. Many graduate students even seem to have severe shortcomings in the required skills. Often students are unfamiliar with standard reference tools other than a general encyclopedia. Abstracts, special dictionaries, and indexes appear to be unheard of. Subject area instructors often assume their students have competency in using the library or believe that short tours or orientation lectures by the college librarian will make students proficient. Unfortunately, many students need considerably more assistance and instruction. Upper-division and graduate students also have problems understanding research reports published in the professional literature. Terseness, abstract and specialized vocabulary, and special reporting styles seem to cause problems. Rarely is adequate assistance available to assist them.

College teaching methods also contribute to the student's difficulties in handling reading tasks. Too often, instructors assign readings by chapter or page number without supplying guides for the student's study. Purposeful reading is difficult. In science courses, the student may find his assigned readings are poorly correlated with his laboratory exercises and sometimes even with the lectures he hears. In classes where the text is an anthology or book of readings (which seem to be becoming more popular), the student has to deal with writings that vary widely in style and content. Sometimes the selected works seem to have been chosen because of the writer's reputation rather than for their content or readability. Often anthologies or books of readings contain meager explanatory notes which inadequately assist the student. A few contain editorial comments which are over-long, dull and pedantic or which are unrelated to the selected passage. These serve to confuse rather than enlighten.

An interesting additional note concerning student reading behavior should be noted. Most college students maintain that they read differently if they are to be tested with short-answer objective tests. Presumably this means that in reading, they note and memorize facts, details, names, dates and important events. Any interpretations they make are likely to be traditional, and divergent or creative thinking appear to be ignored.

If one is to judge from the published descriptions of college reading programs, certain of the problems discussed briefly in this paper fail to receive adequate attention. Perhaps we need more aggressive action on the part of college reading specialists designed to familiarize college instructors with the reading problems of their students. Perhaps we might examine our own programs. Might we make greater use of the student's own texts and rely less on special workbooks? Would programs which are more tutorial in nature help? We can only know if we experiment.

2. Stimulating Reading in Depth

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THE NECESSITY of integrating such basic skills as previewing, determining main ideas and details, outlining, summarizing, reading critically (including detecting propaganda, drawing inferences, etc.), is rather widely accepted by now within the profession of reading specialists. That is to say, most of us no longer merely teach each of the above study skills one by one as discrete activities, and solely in the imagery of tools. I believe the growth within the field, the fantastic accumulations of all kinds of new knowledge in almost all fields, and the greater sophistication of reading people have made the first step a reality. It was not uncommon several years ago, and in many places it is still common, to teach any or all aspects of reading in isolation, whether it was phonics, study skills, or critical reading skills. Many more people in the field today are aware of the fact that these basic skills are all meanings skills closely related to several of the critical reading skills. The hints a good reader picks up in a preview of a chapter or book certainly give him reason to question authorship, date, and bias as indicated in a preface or introduction to a book; and the essential knowledge of the structure of paragraphs, sub-headings, headings, and chapters must be interwoven with the data of the preview to provide the reader with some concrete notions as to where this chapter or article is going and how it means to get there. So the point is clear: the integration of the so-called study skills is a key step in building a reading program in depth. For it is easy enough to teach students, at almost any age, the basic skills. But hopefully by high school and college levels we are able to weave those skills into an interpretive fabric. There is one hitch in this reasoning: how many high school and college courses truly require reading in depth—rather than in breadth?

If reading people will develop the necessary sensitivity through the study skills and then drive the students into making inferences and generalizations and the ability to question sources of information thoroughly, what happens to that student in a natural science class or even in English classes where the *sine qua non* is to accumulate isolated bits of data and to retrieve them for massive standardized tests? In short, the problem of teaching reading in depth is itself multi-dimensional: (1) integrating study skills and critical reading skills; (2) integrating content fields such as history, anthropology, sociology, literature, art, etc.; (3) handling those courses and their tests which seem to tax only the student's ability to outfox or cheat the professor, rather than to think through ideas and concepts on which a given discipline rests. We should take our stand on the side of full understanding and questioning. For at the heart of all reading in depth—critical reading—is the collecting of information, organizing it, reflecting upon it, and challenging it against other information from other sources and other disciplines in the hope of building a rational, cohesive understanding. In the question lies the beginning of learning, and in the answer should lie further questions—not a dead end. Too much of our education, at all levels, is filled with knowing answers which kill curiosity, questioning, and a true intellectual experience for student and teacher. I don't know whether reading teachers can influence other teachers to modify their teaching of their curriculum, but I think they can; and they can through this whole area of reading in depth—in all subjects.

Perhaps some illustrations of actual programs we are running at Northeastern University will illustrate not only what we consider to be reading in depth, but how we think we are influencing a change in other teachers and even in the curriculum.

A good reading in depth program calls for considerable discussion of lively issues, not in the unleashing of isolated elements or skills from a box or package. For in the stimulation of oral communication other doors are opened—namely the door to interpretive reading activities. For two years, we at our center at Northeastern University have been training undergraduates in the College of Education, and a few liberal arts people, in teaching reading in the high school. These undergraduates normally take a two quarter course in teaching reading either in the elementary grades or in the high school, depending on whether they are elementary or secondary majors. In addition, some are selected who have not yet had this two course sequence, and all interns are put through an intensive six week summer training program in conjunction with our Negro scholarship program. The interns sit in the classes being held for the scholarship students; they participate in many of the activities; and have seminars to discuss exactly what was happening in the classes they observed in terms of methods, materials, and the psychodynamics of the group. All of this is closely related, in our view, to understanding how to teach reading in depth. The interns' ability to perceive certain types of relationships in an ongoing classroom situation and to become sensitive to special uses of the material, are all part of the process. Upon completion of this training program, our interns are placed in Boston public junior and senior high schools to carry on, with our supervision, a reading program. The schools used in the project are all in disadvantaged areas, and the key purpose of this program is to attempt to build in a dropout preventive. Each intern teaches eight groups of approximately ten to twelve students, meeting twice each week. Our full-time supervisors visit each intern regularly (each week) to discuss his work. The core of their instruction consists of study skills and meanings skills interwoven through integrated content fields. For example, one group of these high school students was discussing some current problems and decided that the class would break into small groups of two or three to handle a specific current social problem. Two young ladies put on a most convincing and slightly frightening demonstration of drug addiction, including a needle and something which looked like heroin. No, it wasn't. But their discussion and little dramatization of the problem of the effects of the drug, where it can be purchased, etc., all represented rather careful research for them, as well as some observations in their own neighborhoods. Prior to putting on such a demonstration, the class had learned the basic study skills, especially those relating to locating information, use of reference sources, and organizational skills. They had all outlined their presentations. The historical aspects of drugs, for example, were discussed and researched, and this pattern was followed by other groups in this class and in other classes our interns have run. Reading and writing skills are used as wedges to open up areas of interest and concern into several subject areas. Many of the students being taught by our interns require a certain drama in their material in order to produce worthwhile projects. It is interesting, after two years with nine pairs of interns operating in four schools (next year we shall have twelve pairs out in eight schools including four junior highs), that discipline problems are virtually nonexistent; and many of the children remark how it had been their first opportunity to really contribute anything to their classwork. This made them feel a part of the classroom situation—for the first time, for many of them—and their feelings, experience, and opinions were being aired and given serious consideration. They were being challenged, because no one in class would sit by and let anyone else say anything that could not be supported. From several of the teachers in these schools we have been hearing that some of the children in our program were doing better in classes outside of the reading program, but we have also had some flack concerning the amount of noise emanating from the classrooms when discussions or debates are going on. And we have been slapped on the wrist a couple of times because of the choice of outside readings and subject matter discussed. Someone protested the teaching of Camus and Sartre as literature and as a philosophy of life worthy of discussion. We have found that the high school students in these schools are really very much interested in existential philosophy and, in fact, in the whole area of basic human values and principles.

Several of our interns have had great success using poetry as a bridge to fuller understanding of concepts and values, and one poet has been most popular: e. e. cummings. He has been a universal success with our student body and, in fact, has encouraged a number of students to write their own poetry. They like him, I think, because he was quite unorthodox and satirical. They seemed to be able to identify with his attacks on senseless values and customs in our society, and it gave them a broad base for their own evaluations of the world around them.

Naturally, civil rights has been a burning issue for many of our students, and the interns have used this interest and knowledge to build better reading and language skills.

Another project we have been running, which has given us the opportunity to apply our basic notions of reading in depth to a population which has failed in public schools, is our Youth Educational Program. This program is designed for high school dropouts who are members of the Neighborhood Youth Corps in Boston. Currently, we have approximately sixty students enrolled, some of whom seek high school equivalency diplomas and others whose reading levels range downward to illiteracy. We are dealing with youth (male and female) whose previous school experiences have been extremely negative and failure ridden, so our meanings-oriented approach has found acceptance with almost all of them. They too have enjoyed the opportunity to discuss, debate, and read and write about issues of great concern to them. One subject which constantly crops up is that relating to evolution and the beginnings of things. Many of them have been intrigued with the Life Series on Evolution, the Body, the Mind, the Cell, etc., although the reading levels are quite high. The key to the curricular organization within which we teach our reading and language skills is a unified core concept approach. For instance, one group, functioning at about seventh grade level, has been working on the broad concept of conflict. In the process of understanding that concept and all of its related parts, they have read such things as Maugham's *Rain* and discussed and written about the key conflict described in that classic. Since some of the students hold rather fundamentalist religious views it was a fascinating experience to watch them handle these ideas. They did very well, in spite of some language handicaps. Also, this group has discussed racial strife, has read several of Baldwin's works, and has delved into ancient history (they have enjoyed the new Golden Press Universal History of the World, first volume). The concept of conflict is thus approached from several sides, all of which are interwoven. Our basic teaching unit is an English, social studies, reading and language core. Math and science are taught as related units, but not in the same setting or with the same teacher. In fact, their work in science has dealt largely with evolution, and the concept of conflict between and among species is being highlighted, as well as the fundamentals of scientific method, as the key means for arriving at reliable information which is not strictly speculation or hearsay.

Another group worked on the concept of the Negro in history and has dug back into the Bronze Age up to the present to get the facts on what role Negroes have played in our culture and, in fact, what culture they developed around the world. This was tied in with the civil rights protests of the past few years; and in seeking the historical, political, social, economic, religious, artistic, and even genetic facts, they have come away with some deep understandings and insights into the issue. During work in such a unified core concept, reading and writing skills are taught functionally, and the emphasis is placed on interpreting the data which elucidate the concept on which they are focusing. It is true that some of these youth still have some word recognition problems. But they seem to overcome many of these difficulties when they are sifting out facts from opinions and are attempting to make and evaluate generalizations within their broad conceptual area. We do not intend to ignore word recognition problems, but we have found that their maturity, experience, and hunger for learning about issues which affect them require that we strike at interest and motivation first, and then get at the specifics of word recognition. They do learn main ideas and organizational skills, but mainly when they, too, are real and meaningful. For example, after the teacher of one group had done her work with previewing and some introductory work with main ideas and details, she had them building paragraphs in class. They dictated what they considered to be a main idea and then contributed statements to support that idea. At each step, they were questioned and, in fact, questioned each other as to whether such a statement really fit and did really clarify the main idea. Then they did some writing on their own applying these skills, and most of them did well.

The range of intelligence and ability in these groups is quite wide, although reading levels are similar. But our experience has supported our basic contentions that the use of basic study skills within meaningful conceptual areas is much more pertinent and real for our students. They are responding very well, and within a couple of months we shall present the results of our research of their progress.

A key factor in any of our programs for reading in depth, which I have not mentioned, has to do with the quality of our teachers and classroom climate. Our teachers are skilled and emphathetic—not hand-holders or white missionaries seeking converts. Our classrooms are free, open, and quite democratic. Student participation is sought in discussion and in planning the learning activities for longer periods. Guidance is given in all discussion and planning activities so that core units which emerge from students' needs and interests will provide the solid foundation for organizing lessons and activities for the succeeding weeks. Our conceptual units are not one or two week isolated bits, but may extend for several weeks or even a few months, pulling in from all related subject areas the necessary information and background. It is in itself an in-depth approach.

When it was said, so long ago, that every teacher is a reading teacher, I do not believe it meant that each teacher becomes aware that some of his students do not pronounce words too well or that his students do not get the point. I believe it meant that all teachers, working together, can develop integrated subject matter units so that the information and the skills can be taught and reinforced by all toward a common end of understanding the ideas and concepts of all content fields. The atomization of subject matter has encouraged too many to emphasize the accumulation of facts, figures, and dates, without ever delving deeply into the relationships among facts, ideas, and even concepts. The organizational pattern briefly described here is a step in the direction of building the classroom climate and conditions for more meaningful reading in depth in all subject areas. And it does no violation to those purists who feel such plans would ignore the grunt and groan word-recognition activities so dear to the hearts of so many. What I am saying for high school and reading activity is certainly true of the elementary schools. Let us not lose the forest for the trees, else reading instruction, at all levels, will be reduced to so much grunting and salivating in response to black marks on paper, rather than being the highly intellectual function it is when properly developed.

LITERATURE AS PART OF THE READING PROGRAMS

A. PRIMARY LEVEL

1. Towards Greener Pastures: Building Permanent Recreational Reading Interests through the Elementary School Library

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THE JOYS OF exploring a rich heritage of literature should be a part of every child's daily life from his very first day of school. Indeed, his association with the book world ought to start with the cradle, but unfortunately the teacher's influence is not so far-reaching. The early years of childhood are in the hands of the family where much depends on the parents' interests in reading and whether the home environment is a book-rich one. Older siblings who have caught the spark from teachers, classmates, and the school library may exert an influence on younger children but such occasions are much too infrequent. Therefore, the development of a reading habit and an appreciation of good literature are very much in the hands of teachers and librarians.

The Classroom's Role

If the elementary school has a central library, well stocked with attractive, worthwhile books and presided over by a professional librarian, the teacher has a right to expect much help from this source. However, guidance of children's reading is a cooperative venture in which the classroom plays a key role. Each teacher should have a reading program over and beyond the basic essentials that depend on a group of reading texts.

A constantly changing collection of exciting, attractive books flowing continuously from the library to the classroom invites each child to browse and read when he has finished his assignments. This atmosphere, of course, is never left to chance. All children should have an opportunity to read on their own at some specific time during each school day in a quiet, conducive atmosphere. There is enjoyable companionship in that quiet time when classmates sit down comfortably to explore the exciting world of books. As a related activity, we encourage children to share their books with their classmates in various ways. By so doing they absorb better what they read, develop literary discernment, and acquire the ability to express what they think about a good book. Such sharing experiences capture the attention of the reluctant child, sparking him to read for himself and to participate in the discussion.

In addition to these quiet reading periods, the teacher always has some exciting book at hand from which she reads aloud daily. Right after lunch is a good time. It is important to select worthwhile books—those that have universal appeal and are rich in values. The episodic chapters in Carolyn Haywood's books, for example, are perfect because they balance the satisfaction of completion against the anticipation of wondering what will happen to Eddie, Betsy, or Robert tomorrow.

In pondering the benefits of reading aloud, I am reminded of one incident of book-sharing in "Winnie-the-Pooh" which never fails to bring a companionable chuckle from children and adults alike:

> Pooh Bear began to sigh and then found he couldn't because he was so tightly stuck; a tear rolled down his eye, as he said:
>
> "Then would you read a *Sustaining Book*, such as would help and comfort a Wedged Bear in great Tightness?" So for a week Christopher Robin read that sort of book at the north end of Pooh, and Rab-

> bit hung his washing at the South end. . . .
> And at the end of the week, Christopher Robin said, "Now!". . . And Winnie - the - Pooh Bear came-free! *(1)*

Reading aloud to a class of children does not have the therapeutic effect of curing obesity, but the comforts and joys of sharing a "sustaining" book have other values less tangible but even more far-reaching and permanent.

All children visit the library regularly for browsing, selecting, and reading their own books. We do not mean a scheduled period, perhaps once a week, when the whole class comes in regimented fashion, but at various times throughout the week, when a child is definitely on his own in the world of books. Teachers need to have some plan so that no child is overlooked. Many teachers in our school divide their classes into five small reading groups. While the class has formal reading in the room, each group comes to the library in rotation, one a day, to read and explore. Or the groups may come more frequently by any plan the teacher devises. In the central library the children find books of every type and level from which to select. Colorful easy chairs invite them to curl up in solitary comfort—or some may prefer to stretch full length on a warm blue rug to read. The librarians are close at hand to see that they find the right book and are not disturbed. Individual guidance is more effective with a small group than with a whole class.

As a part of the reading program, no child should be without his library book. One of our teachers tells parents that her major home assignment is that the children have an evening period of at least one half hour, free from TV, household tasks, and other distractions, to devote to quiet reading. It is not surprising if the half hour becomes a full hour.

The Library's Role

The library's role in promoting a permanent reading habit is of prime importance. If, during elementary years, children have continuous association with the large, attractive collection and the reading atmosphere of a library, they are imbued with a permanent enthusiasm for books. I speak from my long experience as an elementary librarian and I *know* this condition can be true.

During the first few days of school the primary classes are invited to visit the library to glimpse the exciting treasures and experiences it has in store for each child. At our school the child sees a whole library wing where color is rampant. In the informal area there are many easy chairs surrounding the big blue rug. Low stools are provided for the children to sit in front of the shelves and browse. Up a spiral staircase is an intriguing balcony where the reader can become lost to the world about him. The children meet the library staff, friendly people who are always there to help.

Library-Sharing Periods

The initial visit is followed by weekly literature-sharing periods for each classroom. The librarian uses these periods to present reading in many exciting ways. Sometimes it is a story hour when the children cluster on the blue rug to come under the spell of a timeless folk tale told by a competent storyteller. At other times a member of the staff discusses books and reading in a carefully planned program, using a variety of approaches. Perhaps the theme is set by the season, a particular holiday, or some special event.

Frequently the programs reflect some unit in progress in the classrooms. For example, when a third grade was studying *Indians*, a series of library periods was designed by the librarian and teacher to point out the many different kinds of books to read and use—stories, folk literature, biography, and factual materials. We showed how to find books through the card catalog and sampled excerpts from each type. For a first-grade unit on *cats*, the teacher asked for a bibliography of titles that the children would enjoy. This task was easy. And soon every child had his own special "cat" book. I still recall how the children laughed when we read the dedication in Beatrice De Regnier's *Cats, Cats, Cats, Cats (2)*.

One important aspect of relating library periods to units is the follow-up activity in the classrooms. Teachers may continue reading the books introduced by the librarian. Children are also given the opportunity to check out similar books for their personal reading. Any unit is greatly enriched by using a wide variety of books both in the classroom and the library. At the same time children's reading develops in depth and purpose.

Another approach is to present a certain type of literature. A second-grade teacher suggested that we use *biography* for one sharing period. This time the children sat in front of the biography shelves. The term was discussed and simple biographies about Washington, Lincoln, Daniel Boone of TV fame, and other popular heroes were located. During the sharing time a chapter from Jean Lee Latham's *Sam Houston, Hero of Texas (3)* was read aloud. At this age when children are very responsive to poetry, we can do much to prevent later apathy or even antipathy towards the poetic form. From time to time, it is good to share one or two lovely poems as part of a period. Sometimes the whole program is on poetry.

All too frequently children fail to identify the fine people who create their books. Anything we can do to make them more aware of authors and illustrators enriches their reading. Newbery and Caldecott award time provides one occasion for introducing some of the finest. From time to time a certain author or illustrator and his best works may form the theme of a literature program. Our kindergarten teachers are doing a fine job of developing an awareness of author-illustrators. Just mention Robert McCloskey or Maurice Sendak to the children and without hesitation they can name the books of each.

In the first grade, there is an exciting unit called *The People Behind Our Books*. During this study the librarians become important resource people. Not only are authors and illustrators introduced, but publishers as well. Our local authors and artists are invited to come and talk to the children about their books.

Quality Reading

Before concluding this rambling discussion, I should like to stress the importance of *quality* reading in childhood. We might adopt as our slogan, READ, READ WIDELY, READ DEEPLY. Once we have motivated enthusiasm for reading among children, we have a further obligation to provide positive guidance and direction in what they read and how they respond. Even the avid readers have problems. The appetite is there, but it often tends towards a monotonous diet of saccharine literature (or perhaps of the more violent type). The child needs our guidance towards a richer type of reading. He needs to savor more deeply what he is reading—to grow in appreciation and understanding.

There are four prime weaknesses in the avid reader:

1. He reads in a rut.
2. He reads with mediocre ability.
3. He "gulps" his books.
4. He fails to appreciate the values in good books.

These weaknesses are all too apparent in the reading of older boys and girls when it is too late to correct them. At the primary level the reading habit is just being formed. Here we have the opportunity *and* the responsibility to forestall these pitfalls. We have the materials, we have the occasions, and we have the spontaneous, receptive enthusiasm of the younger child on which to build.

Finally, try to bring some beauty into the life of children each day through literature. Help them to savor great moments in books. Ours is a realistic age but we need scope for imagination. We must develop dreamers as well as doers, because this scientific age cannot achieve without vision. Henry Thoreau said, "I love a wide margin to my life." We can and must provide this wide "margin" for children through the medium of reading and fine literature.

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2. Books Determine Attitudes and Actions

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THERE IS GENERAL agreement among authorities in children's literature that books can and do influence attitudes and actions.

That magnificent man of children's literature, Paul Hazard, said, "I like books . . . that offer to children an intuitive and direct way of knowledge, a simple beauty capable of being perceived immediately, arousing in their souls a vibration which will endure all their lives" *(1)*. He added further, "I like books that set in action truths worthy of lasting for ever, and of inspiring one's whole inner life . . ." *(2)*.

Other authorities in the field, including Arbuthnot, Larrick, Huck, and Young, are in agreement with this viewpoint that the influence of books can be lasting and of great value in the lives of children.

Paul Hazard's words concerning the enduring qualities to be found in books are especially felicitious in our time in which the speed of change has been accelerated to an unprecedented pace. The growing child sees sudden change not only in the world outside his school but also within its walls. In the past decade education itself has let go of many cherished techniques and methods and many so-called facts, as research has brought new knowledge. Some aspects of this change may be extremely disturbing to children, as every teacher well knows.

Recently a speaker in the field of audio visual education stated that during the next ten years education might be expected to go through "an upheaval" such as never before has been seen in the field. The outcome of this prediction remains of course in the future. In an age of change of such magnitude that it is scarcely to be imagined it seems obvious that children need, more than ever, to search out values that are enduring and lasting. So it is comforting to read again some of Hazard's hopeful and happy phrases about the lastingness of values to be found in children's books.

Purpose of the Paper

It is the purpose of this paper to recount some actual experiences of children and books, in which the influence reached deep into the inner life, to be expressed outwardly in action. These anecdotal records have been gleaned from years of living with children and youth and books.

Incentive for Life-Long Learning

The first true episode concerns Sharkey, a boy whose parents were transient field workers. One day Sharkey was helping his teacher in the happy task of replacing old books with new on the shelves of his classroom. They came across a dog-eared copy of the d'Aulaires' picture book biography of Abraham Lincoln. With the sudden thought that this book, even though battered and torn, should not be discarded, the teacher asked Sharkey if he would like to have it to keep as his own. Sharkey said "yes;" it became his, and he took it home.

Time passed and then one day Sharkey's father said that he had made up his mind to move the family on to another state. Now Sharkey was the mainstay of the baseball team, and when his teammates and pals heard that he must leave they told him to ask his father to stay at least until the season was over. But Sharkey's father said no to this suggestion. Then Sharkey's friends urged him to tell his father that even if the family moved, Sharkey himself was going to stay. At first Sharkey's father said that he couldn't leave the boy behind, but Sharkey kept insisting, reminding his father of the paper route which brought in a little money. Finally, unbelievable as this may sound, the family drove off in their old car on their way to California, leaving Sharkey behind.

Not having any permanent home, Sharkey slept first in one place and then in another—many times in a garage at the home of one of his friends, or on the back seat of a car in their carport. Wherever he happened to be staying, his few possessions went along with him, and he recalls that among them was always the old copy of *Abraham Lincoln*.

Sharkey was an industrious and likeable boy, and so he was able to get small odd-jobs to augment his paper money, and his friends were generous with the contents of their refrigerators; but even so, the growing boy sometimes went hungry, and his clothing, though clean, was for the most part unpressed, old, and faded.

So Sharkey got through elementary school. He knew that if he did not stay in school, he would be picked up by the truant officer.

Then came a time of decision for Sharkey. Would he go on to high school? Some of his friends were going, but many were not. His parents had never returned. So this decision was Sharkey's alone. As he tells about it now, he says, "I thought about the question a long time and then I said to myself, 'If Abraham Lincoln could be as poor as he was, and still get an education, then I could too.' That one book was the inspiration that gave me courage to keep on through my freshman year. And after that I made the same decision every year until I had my diploma."

After graduation he went into the construction business. He still is inspired to continue his education through reading books and magazines, and his friends consider him as well read as the average college graduate. Thus the enduring influence of one book.

Incentive for Acceptance

Can a teacher expect the influence of a book to help remedy, within a relatively short time, a situation of harassment on the playground and make for better personal relationships?

In a district where most of the children's homes are above average economically, a third-grade teacher noticed that on the playground one little girl, obviously one of the minority from a home of low income, was being subjected to taunts and teasing because of her dress. This child, though always clean, had very few clothes, and day after day wore the same dress, usually an old and faded one and noticeably a hand-me-down. When the other children engaged in free play, they did not invite this child to join them; and she stood apart, lonely and unaccepted by her peers.

Pondering how best to handle this problem, the teacher remembered a similar situation in a book by Eleanor Estes. This teacher observed the wonderful custom of reading aloud daily to her class, and after she had finished the continued story then in progress, she chose *The Hundred Dresses,* reading from it every day without comment. Soon after she finished the story, she noted that the little girl with few dresses was invited to join in the group games, and the tauting and teasing had ceased. The teacher attributed this acceptance of the little girl to be the result of the influence of the book, since nothing else had been done to alleviate the situation.

Incentive for Compassion

A mother was greatly concerned about her son's making slingshots and shooting sparrows and other birds in the garden. He would bring them down with maimed wing and broken leg and seemed to care not a whit as they lay helpless and dying on the ground. His mother, with her own philosophy of child rearing, did not wish dictatorially to forbid the child to engage in this kind of activity, but she did wish he would see the cruelty involved and give it up.

Then she enrolled in a summer course in children's literature and went home the first weekend with an armload of books to read. Her son noticed the books on her desk and idly browsed among them. The next day she observed that he was reading one of the books, *Bambi,* in the original version. A few days later she was surprised to find his entire collection of slingshots of asorted sizes in the wastebasket. It is her opinion that if he had been exposed to *Bambi,* or similar books when he was at the primary level, he would have grown up with a compassionate feeling for wild creatures and probably would not have engaged in the shooting orgy.

Incentive for Knowledge of Other Countries

Books read in childhood, even at the primary level, inspire destinations for future travel. Probably it never will be known how many journeys to Switzerland had their origin in the pages of Heidi. More than one college student has stated that the desire to see that country came during the time spent vicariously with Heidi in her beloved mountains. Books of similar high appeal about any country can do much to focus attention on the people of another land.

The number of visitors to any literary shrine such as the home of an author or the locale of his work attests to the great drawing power of books as an incentive for journeys. The home of Laura Ingalls Wilder at Mansfield, Missouri, for example, draws from around the world many lovers of the Little House series. Not long ago an Australian family of six flew from their country and leased a car at San Francisco for the purpose of making visits to the locales of all the Wilder books. As these Australian parents and four children pursued their main interest from the Dakotas and Minnesota, through Kansas and Missouri, and then on to New York, it seems logical to assume that they gained knowledge and understanding of contemporary America to add to that of pioneer America obtained from reading the Little House books. Think of the potential for fostering international and intercultural understanding!

Incentive for Experiences of Awareness

More than one parent, after sharing with his young child one of our beautiful awareness picture books, has had to make provision (under the peculiar but effective pressure that only children can exert) for carrying out in real life the experience the child enjoyed vicariously through the pictures and text of the book.

Recently a parent living in a desert country where snow is a great rarity, shared the Caldecott award-winning book, *The Snowy Day,* with his four-year-old child, who had not as yet experienced snow. The child became so enchanted with the prospect of play in the snow that the very next weekend he inveigled his father into taking him to the snowfields of the high mountain country. His father said, "We had to do everything in the book—even to making angels in the snow!"

Recognition of Ethical Truth in Folk Tales

Much has been written about the value of ethical truth in the fairy or folk tales. Here are examples of two children who got the point of two of the tales. Said one third-grade boy after reading the story of *The Fisherman and His Wife,* "She wanted too much!"

After hearing the story, *The Frog Prince,* a little girl at primary level remarked, "The Princess shouldn't have made a promise she didn't intend to keep."

Adverse Effects

It would be unbelievably wonderful if all experiences with books had such pleasing outcomes as those just noted. Even though the potential influence of a book may be considered good or even excellent, there are of course other factors which may enter into the situation—modifying factors such as the way in which a book is presented, or the time at which the book is experienced, or the emotional maturity or readiness of the child.

One morning a student who was a young mother arrived late in an early class in children's literature. Her face looked drawn and haggard. Apologizing after class for her late entrance, she explained the reason. She said that she had had very little sleep the night before, as her little daughter had awakened from a bad dream screaming and in hysterics. The mother had a very difficult time getting her child calmed and back to sleep, only to have her awaken again sobbing and badly frightened. After this had happened several times, the mother knew that she must get to the source of the fright, so she recalled all the things that the child had done the previous evening before going to sleep. The mother remembered that she had read to the child just before bedtime—read several children's books which she was reviewing for her class. The thought came to her that perhaps something in one of the books had frightened the child. So one by one the mother looked through the books again with her little daughter. As they were turning the pages of that wonderful book, *The Biggest Bear,* by Lynd Ward, they reached the picture of the huge bear reared up on his hind legs, holding a maple syrup jug in each forepaw. Instantly the child started screaming, covered her eyes with her hands, and then sobbed, "He's eating children! He's eating children!" Then the mother realized that she had not taken time enough to let the child get the full and accurate meaning from the pictures. Of course the mother began explaining and urging the child to look again and see that it was only syrup jugs and not children that the bear was clutching in his paws. At first the little girl would have none of this explanation, for she said that she knew the bear already had swallowed some of the children because "his tummy is so big and fat, I know they are down in there."

Influence on Aesthetic Appreciation

Never before in the history of children's books has there been such great beauty, magnificence, and uniqueness of illustration as that which we have today.

The total effect of the influence of all of this on children's artistic taste and literary appreciation is immeasurable. Many college students today give testimony to the fact that the type of illustration they like best as adults is the type to which they had most exposure in their early years. Many attest to their love of Leonard Weisgard's seascapes (as in *The Little Island*) and his lovely nature motifs. Others recall with greatest delight the lovable ducklings of Robert McCloskey or the rabbits of Robert Lawson.

According to the expressed opinions of many college students in informal surveys it is evident that we may infer that the Disney influence on the formation of artistic taste and even literary appreciation has been great, at least in the field of children's books.

Typical of many stated preferences are statements such as these:

"Brown's illustrations are good, though weak. But of course Cinderella to me always means Disney's cute little Cinderella."

"Snow White is not Snow White unless portrayed by Disney, as a darling young girl."

"Tenniel's Alice rates second with me, as Disney's Alice is so much more attractive."

"I was so disappointed when I read the original version of *Wind in the Willows.* In fact, I was bored. It fell so far short of the story as given by Disney."

Again, judging by expressed opinions of college students on informal surveys, Dr. Seuss' illustrations have had a marked effect. They rate such "raves" as, "Of course, Dr. Seuss' illustrations are always wonderful."

Or, "Dr. Seuss' fabulous pictures are excellent."

Or, "No pictures could better express a story than those of Dr. Seuss."

After reading many of these statements, one instructor of children's literature had a fleeting but wild dream of the art decorating the home of two newly married students. The Cat in the Hat pranced in pictures around the living room walls. Snow White seductively batted her long eyelashes from a frame in the bedroom; and in the kitchen, Sam-I-Am had finally caught up with his victim and was proffering him the famous green eggs and ham.

Let it be added quickly that the effect of this dream was greatly minimized by remembrance of all the wonderful fun and values to be found in Dr. Seuss' earlier books—the humor and faithfulness in *Horton Hatches the Egg,* the pathos and humanity in *Horton Hears a Who,* that book dedicated to the democratic ideal that a "person's a person no matter how small."

To further dispel the dream there appeared lovely mental vistas of The Vanishing Prairie, Nature's Half Acre, and even the gamboling Three Little Pigs.

Not by Recipe

In considering the possible influence of books it is hoped that the fact will be obvious that reference is made to their *potential.* This influence is not brought about in the manner of using a recipe. There is no certainty that a teacher can take one cruel child and mix well with Bambi and his forest friends and produce a compassionate protector of wild life. But the potential is there.

Nor can we expect that the reading of a biography of Abraham Lincoln will solve the dropout problem. But it does have value as one aspect of one possible preventive measure.

Literature of Human Understanding

Josette Frank, in discussing "Literature of Human Understanding," would have us remember especially one book—a book which has wonderful potential for use with children in the home. She says, ". . . I can hardly close a discussion of such a literature without reminding you of the greatest book of them all: the Bible. Whatever special place the great work may have in a child's religious life, the human values in its stories are rich beyond comparison. Here are stories about people that plainly reveal the workings of their minds and hearts. Children can have some of these stories read to them directly from a well-edited edition of the Bible itself—not a watered down version"*(3)*.

An Arizona author, Anne Rhodes Johnson, has summarized in succinct phrases something of the potential of books, in the quoted excerpt from a prose-poem written especially for a state meeting of the Arizona Reading Council:

> Books transport, educate, entertain and satisfy needs of humanity. Whether author or reader, each is transported through the depths of existence:
>
> We find the ugliness of humanity;
> Love, which transforms humanity
> into a thing of beauty;
> The complexity of life
> The simplicity of a child
> The wisdom of the ages
> The wonder of a sunset
> Faith in a Supreme Power
> And assurance of Eternity.

May we as teachers continually search for books with great potential for bringing high and enduring values into the lives of children. And whenever it "seemeth right so to do," may we incorporate these books into our daily experiences with children, remembering always that the primary purpose of literature is enjoyment. And remembering also in our search, that in the field of children's literature, as elsewhere, "he that seeketh findeth, and to him that knocketh, it shall be opened."

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B. UPPER ELEMENTARY LEVEL

1. Oral Interpretation of Literature

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"THEN WOULD YOU read a Sustaining Book, such as would help and comfort a Wedged Bear in Great Tightness?" —The words of Pooh Bear from A. A. Milne's *Winnie-The-Pooh* pinpoint two fundamental facts about children and the literature they enjoy. First, that a satisfying literary experience for a child, or a stuffed bear, demands a selection of substance—a sustaining book or poem. The second is that beautiful literature must be *heard* to be fully appreciated. The human voice—particularly that of a teacher who reads with enthusiasm, with a full heart—is a fine musical instrument, filled with melody, movement, and emotion.

Children are quick to sense when they have such a teacher. Watch their rapt attention in a classroom where a teacher with these skills holds forth. She is the eye and the epicenter of her children's world. Four jets, two stampeding elephants, and a flashing pinwheel would not turn the attention of the boys and girls from the teacher's face when she reads aloud.

The very nature of our profession dictates that each teacher should learn to read aloud—and to read aloud *well*—to children. For the very success of our venture—how well we impart knowledge and a sense of values to our children—depends upon how well we read and interpret the thousand and one facts, assignments, and notices which make up part of the package marked "An Education." And of course every day we should read aloud to children a piece or two of prose or poetry, for in so doing we are helping them to see the beauty and fun of literature, to perceive its values, and to appreciate the great literary works, old and new.

Reading aloud *well* is an art. A few teachers seem to have an almost innate command of that art; some teachers possess it to a moderate or lesser degree; some seem to have it not at all. But whatever our degree of competence with the skills of oral interpretation, we might profit more and again, or we might feel a resurgence of interest, or we might pick up a helpful hint on how to read aloud, if we posed and then answered two questions:

1. What does it profit the children if I read aloud to them in the classroom?
2. What are a few lasting principles of good oral interpretation?

Why Read Aloud?

In these days of increased class size and the "crowded curriculum" (fifteen subjects to be taught in the elementary school!), we increasingly hear the cry from teachers, "I don't have time to read aloud to my children!" Admittedly, the demands upon us to teach subject matter per se are heavy. But we always find time to utilize those approaches and materials which we feel contribute to learning, even though they don't "fit" perfectly the course of study. The reading aloud of good literature is appropriate and deserves time for many reasons. To consider but a few:

Promotes interest. Reading aloud to youngsters furthers their interest in good literature. Just as a television spectacular or a movie version of a child's book places a heavy demand upon that book in the public and school libraries, so does the reading aloud in the classroom of a popular book cause children to seek out other books of a similar nature or other books by the same author. Or very often when a teacher begins a book in class she will find that within a day's time one or two enterprising youngsters will have obtained duplicate copies of the book and are following the teacher's presentation. It should be a rewarding experience for any teacher to see her children re-reading what she has just read aloud to them. For this result is what she should hope for—a new and quickened interest in pursuing quality literature.

Helps interpret character. The human voice has the ability to bring out the true flavor of a literary character—to make him fully alive. This act is accomplished as the teacher gives words and passages their proper stress and phrasing or as she creates a mood by raising a brow or lowering her voice. Only then does the child-listener gain a complete understanding of who the characters are, what they are thinking, and why they are performing as they are.

For example, consider the scene in Twain's *Tom Sawyer* wherein Tom and Becky encounter the hideous Injun Joe in the cave. As the two children round a corner in the black cavern, a circle of light highlights the dirty, gnarled, twisted hand of Injun Joe plastered against the wall. The teacher, by lowering her voice, by proper intonation, by a gasp of surprise, can portray the horrible Injun Joe as Twain meant him to be represented. Whenever this passage is shared with children, they become so excited that it is necessary, figuratively, to scrape them from the ceiling. For children recognize then the total evil of Injun Joe and the danger that his presence in the cave portends for Tom.

Is a tension-reliever. The oral reading of literature presents the teacher with an opportunity to acquaint children with some of the most humorous plots and characters in all of literature. Nor can too much be said about the general tension-relieving quality which books of humor bring to the classroom. The presence of humor in the classroom should not be by just happenstance; rather, it should be deliberately induced—and humorous literature is the ideal vehicle.

It is interesting to note that many of our good books of read-aloud humor for children have the names of boys for titles: *Homer Price* by Robert McCloskey, *Henry Huggins* by Beverly Cleary, *Henry Reed, Inc.* by Keith Robertson, and *Five-yard Fuller* by Robert Wells. One of the most delightful books to share with youngsters is Phil Stong's *Way Down Cellar*. This is the story of three boys who discover a secret tunnel leading into the hollow walls of an old mansion whose occupants are an eccentric woman and her cook, Ethelfreda. Disappearing cookie tins (and cookies, naturally!), secret panels, and peep holes are mere introductions to a riotous, laughter-choked conclusion.

Turning our attention to poetry, we would be remiss if we did not mention Cole's *Humorous Poetry for Children*, a book which draws together an outstanding collection of funny-full, fanciful verse. This volume is a must for the teacher who likes to cap her read-aloud sessions with a last quick dart of laughter.

Rewards the teacher. Reading aloud to youngsters can be a direct reward to the teacher in a number of ways. As the teacher reads she is in a position to select, share, and relive with the children those favorites of her own childhood, those books and poems which she knew and enjoyed so much. Some teachers are hesitant about resurrecting some of the old classics. They shouldn't be. What made these good stories in their times makes them so today. Many of the older stories are still right for today's children; they are still circulating. The fact that a teacher "once upon a time" dearly loved and appreciated such books will make her oral presentation of them all that much better.

Further, reading aloud can give the teacher an opportunity to be a real "hero" with her students. This fact was brought to my attention the day I overheard two boys on a playground engaging in the following dialogue:

"Frank, why are you standing near the door?" asked one boy. "It isn't time for recess to be over."

Frank responded, "I know, but our teacher is reading *Treasure Island* to us, and I want to be the first one back into the room."

Frank's friend, a youngster who apparently had had earlier contacts with teachers who read aloud to him, replied, "Oh, shucks! Our teacher never reads to us!" What a sorry indictment of the second teacher. What well deserved praise for the first!

Tips on Reading Aloud

The art of reading aloud demands an attention to the detail and to the finer nuances of interpretation. But by concentrating on just a few points, by focusing on and improving in just a few areas, we can make the read-aloud period more enjoyable to the listeners.

Summarize long passages. Long, flowery descriptions, such as those found in Tarkington's *Penrod* and Twain's *Tom Sawyer*, often slow a story or poem which otherwise makes excellent read-aloud material. Children can rarely suffer through long readings of descriptions of scenery or heavy moralistic preaching. Further, children want to hear who the characters are and what they are saying and doing. Pre-reading of material will show the teacher where to wield the blue pencil, where to summarize, and where to focus her reading.

Stop reading a "clinker." We have seen teachers, thinking that a book begun is a book to always finish, begin a book—ofttimes a classic—which they enjoy, which they think the children will like, and which they pursue to its deadly end. But if the teacher had been alert to her audience, she would have noticed early that the youngsters were paying little or no attention to her reading. For this group of children, the book is a poor choice, a "clinker."

With every new class of children we must weigh the potential of every book we are considering reading to them. Sometimes we become so enamoured of one book, because it has been so successful for us through the years, that we use it automatically with a new group. No book deserves recognition as a guaranteed success. For groups of children vary in their acquaintance with literature and in their sophistication. So, if a book doesn't begin well for a group, put it aside or try it later in the school year or reserve it for certain individuals.

Do things with your voice. If the teacher cannot put enthusiasm into her voice, if she cannot enter into the reading with a full heart, it is better that she not read at all. I once visited a class where the teacher was reading to the class from a book about rockets. She had the audacity to read, "The rocket went woosh." Now, any rocket that leaves the ground in a cloud of liquid oxygen goes "WOOSH!!," and the children do not expect less. Children will quickly be alienated by the teacher who does not read with a fever and a fervor.

Stop at an interesting place. An experienced reader knows where this place is. It is the point in the mystery story where a hand reaches from without the drapes to throttle our hero. When the teacher reaches this point in the story—when the children are leaning forward—then the teacher says, "We'll stop reading here for today." And if the class responds with "Oh!" or "Do we have to stop now?," the teacher knows that she has found an interesting place to resume tomorrow. Further, the "ohs" and "ahs" are good measuring sticks of how well the teacher is reading. Of course, we never punish very small children with such a technique. For them we read the story to its conclusion. But for the others—leave them dangling!

Read above level. Read aloud some materials which are a year or two above the children. Children very often know the books at their own reading level. They are curious about the people and plots in books "up there," in the next class or age group. Also, reading such materials makes children reach up, both for vocabulary and for concepts. It is a stretch that is to be encouraged by reading a bit above their level at times.

Reading aloud involves a knowledge of many skills. It also involves an understanding of how children benefit from their participation as listeners. But these traits are not enough. A good book plus experience plus enthusiasm for reading aloud spell success as an oral reader.

2. Children's Literature and Creative Thinking

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THE TERMS "children" and "children's literature," to most people, are synonymous with "creative." The special people who create books for children are certainly highly creative artists able to communicate their unique talents by words and pictures on the printed page. Children, the audience for these books, have that wonderful ability to be creative with such mundane articles as a sand pile and a spoon. What they are able to do with the products of others who are creative, in the form of a good children's book is, indeed, a phenomenon. Two highly creative individuals, one by fact of age and one by that yet undefined term "talent," interacting through a book form a mysterious, wonderful delight that comes only to our species, and unfortunately, only sometimes.

Who among us has not watched as Alice, Tom Sawyer, The Princess, Toad of Toad Hall, Mafutu, and even Max of the Wild Things, have worked their special brand of magic? Who among us has not had that special brand of magic worked on him? What is it that happens when the reader and a good book come together? It is, because we don't know what else to call it, a "creative experience," a time when man's unique ability to imagine, to mentally create, modify, or change a set of stimuli comes into play. "Creative thinking" has been defined by the experts again and again. The words "divergent thinking," "reorganization," "building," etc., are a constant thread through most definitions. Shakespeare called it "the mind's eye." However it is defined, it is an ability unique in man—an almost special gift that needs to be encouraged, developed, and prized as a part of every human being.

As educators, we are finding that the creative potential of our students is of concern to us. The creative, divergent thinker is one who is sought after by the professions and industry. He is a valuable person in our society. The work of E. Paul Torrance *(4)*, Alice Miel *(2)*, Alex Osborn *(3)*, etc., have given us valuable research and opinions in the area of creativity and the creative learner. Increasing evidence is pointing to the possible fact that the creative potential is a part of the intelligence quotient and should be fostered and developed by education.

Children's books, by their very nature,

offer opportunities for creative thinking. The very fact that words in the form of abstract symbols are able to relate to children the adventure and beauty of a story is a pinnacle of creative achievement. The piecing together of symbols by an author and the reception and interpretation of them by a young reader are a rather remarkable task. Those symbols are, after all, just the remains of ink on metal, placed in an orderly fashion on paper. The meaning, the story, and the beauty are in the interpretation of those markings. The interacting with these symbols and the giving them the spectrum of meaning are the creative act. A book's value is based on mutual creation —on the part of the author and illustrator arranging symbols to convey their meaning and on the part of the reader in responding to the symbols and giving them personal meaning.

Oral Reading

Interacting with books is usually thought of as a lonely experience, that is, the reader and his book together with the exclusion of outside groups. This way is the usual one of getting books and people together. With young children, however, the barrier of print is often too great to overcome; and therefore, the full creative aspect of interacting with a book, on a one to one basis, is impaired. What does one do then to bring this experience to children? One reads to them. Much of the same mutual creative experience mentioned earlier is achieved by oral reading to children and discussing the book with them. A good book, well read, opens up a world of opportunities to soar into creative thinking. Through discussion the plot, characters, setting, and time of a story can be expanded and personalized; imagery can be sharpened; interpretation can be compared and contrasted with others. Imaginations will be set to running and creative thinking will result.

Dramatic Play

Creative drama, or pretending at play, is a natural part of being young. Most of us have watched while children free at play transform a classroom or playground with amazing speed and clarity into Fort Apache, Cape Kennedy, Dodge City, or Fire Station J. The creative imaginations of youngsters during times of dramatic play are a delight to behold.

Creative drama and children's literature have gone hand in hand for years. This highly creative activity has become an integral part of good classrooms across the nation. Its values as a way of encouraging creative thinking and enhancing the appreciation of good literature are almost limitless.

Children sharing a story, presented orally by the teacher, and the subsequent preparation for dramatization are an excellent way of getting "to the heart" of a good story. The discussion of characters, motivation, setting, time, emotional content, etc., can make literature an emphatic, dynamic experience. Creative drama with children's literature can bring print into vivid, physical life. The encouragement of creative, imaginative thinking necessary in the preparation for creative drama will result in helping children realize the magic and potential of the printed word. Dramatic play demands mutual creative effort between the author and his audience . . . an important step in the appreciation of literature . . . if the play is to be satisfying and successful. An experience with creative drama can start a whole new attitudinal syndrome on the part of the participant. The discovery that interpretation of characters, themes, and motivations within a given story can vary according to the receiver is a major step in developing literary awareness and sensitivity.

The following steps in creating a dramatic play situation with children's literature have been outlined by Fitzgerald: 1. Tell or read the story. (A story with high action and few well defined characters is best.) 2. Discuss the story with the children in detail. (Examine characters, setting, and motivation of activity in detail. Determine how the characters look, what kind of clothing they would wear, what the setting is like, why they behave as they do, etc. Break the story down into scenes or "acts" with the children. Choose one scene for play. Examine the scene for sequence of action, setting, characters, etc.) 3. Cast the characters with help from the children. (Let them know others will have a chance to play the characters when the story is replayed.) 4. Play the scene. (Allow the players a few minutes of consultation before they start. Direct the remaining class to watch the play and to remember five (more or less) things they like about the play and five things they would improve when it is played again. Start the play with a signal that is understood by the entire group.) 5. When the play has been completed, stop the action and evaluate the play. (Ask the audience for points they have noted (step 4). Make sure positive points are expressed as well as the negative ones. Offer your evaluation, as well.) 6. Recast and replay the scene. (It is important that the steps outlined above be followed again. This repetition often spells the difference between success or failure with this technique.

The teacher needs to remember that dramatic play or creative drama is not theater for children. There are no scripts, settings, or costumes. The entire play period depends upon creative, imaginative, spontaneous play. The value lies in the creative process, not the final result, although the final result should be a satisfying one for the children.

Long, involved action in a story is often difficult for children to play. A story or scene should rarely go over five minutes for the beginner in dramatic play. As facility with this technique increases, longer time spans can be successfully used. Folk tales serve as excellent vehicles for dramatic play. Their structure and content lend themselves well to this kind of activity.

Kaleidoscope of Opportunities

The bringing together of children and children's books presents a kaleidoscope of opportunities for creative thinking. The sorting out of possibilities and the direction they take are largely the task of the teacher. Placing a cap on the creative activity of children when they have had an opportunity to interact with good children's books is much like trying to cap a volcano mid eruption! The possibilities are unlimited.

The area of art as a way to express reactions to literature is a popular and exciting technique. Illustrating a story or a scene in a story or making portraits of characters is an excellent way of encouraging creating thinking and acting. Many books for the middle grades do not have the lavish illustrations of the picture story book. Here is an opportunity to let "the mind's eye" take on graphic form. Drawings or paintings by individuals, group-constructed murals, etc., can be rewarding and decorative activities. How do they see Aunt Polly's house? How does the Bull Ring in *Shadow of a Bull* look? What is so magical about *The Secret Garden?* Does *Mary Poppins* really look like Julie Andrews? What fun these projects can be . . . and creative activity is always fun!

Puppets and puppet theater offer additional opportunities for creative work with literature. Making a play from a favorite book can be delightful. A simple puppet theater and several puppets can equal a Broadway opening to fourth graders and probably be as creative. These productions can be as simple or as elaborate as the needs dictate. Tape recorders, background music, colored lights, and a good story can develop into a valuable unit of work.

The creative thinker is needed in our society. He is becoming a necessity. As teachers we need to encourage, develop, and foster creative thinking in our work with children. Few sources offer the possibilities for this valuable part of education better than children's literature.

Albert Einstein said, "Imagination is more important than knowledge." We do a fine job with the acquisition of knowledge. Think of the product our schools would develop if we combined imagination and knowledge in equal parts in our classrooms. It would take "creative thinking," indeed, to imagine the potential.

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C. SECONDARY LEVEL

1. Realizing True Values in Literature

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REALIZATION OF VALUES depends considerably on their identification. The topic, therefore, involves two problems: first, establishing the values which derive from a study of literature; and, second, determining how these values are to be achieved in the reading of literature by the secondary school student. The scope of this paper, however, is not so neatly dichotomous.

Values in the study of literature seem to be of two kinds, part process and part product; and any hierarchy of values would probably focus on one or other of these depending on whether reading is viewed rather pragmatically as a skill essential for academic success or as an art, a fulfillment sufficient in itself. Specialists who have come into the reading field through elementary education generally tend to view reading as a skill whereas those with a background of English and literature see it as a cultural accomplishment, the first as a means and the second as an end. An examination of the various values associated with literature indicates an admixture of both elements.

For example, David Daiches in one instance emphasizes the process of reading, his values being (a) the uses of language, (b) the nature of form, and (c) the question of quality with the objective being ultimately to read with understanding and appreciation. He sees these values resulting from the "shock of recognition" in the total impact of meaning from a literary piece—in his example specifically poetry—and with eventual appreciation of craftsmanship on the part of the student and improvement in his own verbal expression. Essentially, he states, "The great thing is to stimulate and sustain curiosity" *(1)*. Leland Jacobs sees the values of the study of literature as (a) stimulating creativity, (b) giving openness to life, (c) giving insight into self, and (d) as reflecting form and order *(2)*.

Seeking more practical and immediate statement of values, I went directly into the marketplace to the purveyors and users of literature—teachers and students in secondary schools. A survey of seventy-eight teachers in thirteen secondary schools, ranging in teaching experience from one to twenty-eight years, resulted in the following values in order of frequency: (a) increased understanding of human nature; (b) refinement of aesthetic sensibilities and personal values; (c) expansion of cultural potential by sharing in the literature of other countries; (d) appreciation of the power of the word; and (e) improved communication, verbal and ideational.

A survey of approximately 100 high school seniors elicited the following hierarchy of values: (a) insight into human nature, life, and other people; (b) personal enjoyment; (c) improved communication and expression; (d) improved critical powers in reading and analyzing literature; and (e) appreciation of historical interrelationships.

Both groups see increased understanding of the human condition as the paramount value of literature study. Although the students tend to be a bit more pragmatic than the teachers, they alone listed personal enjoyment as one of the major values and they likewise recognized the power of literature to broaden personality, to enhance appreciation of beauty, to understand oneself better, and to provide a basis for common understanding.

No doubt a caucus of this or any group of educators would reveal very similar values accruing to the study of literature. Equally so, emphasis would be on the process, that is, entry into the work for maximum understanding and appreciation, or on the product, that is, the personality and life outcomes derived from literature, dependent on the experience and orientation of the individual. Nevertheless, each of us recognizes that the process is essential to the product, that no values—transient or permanent, casual or significant—are possible from the study of literature without initial facility in apprehending the complex ingredients of a literary piece.

This lengthy preamble specifically frames the problem of this paper: that all any teacher can do toward realization of the values inherent to the study of literature is to work on the process, to improve entry and understanding of what makes any work truly literary. Appreciation and other derivative effects will depend thereafter on elements—personal, environmental, or cultural—beyond the teacher's influence.

Several models are available for the intensive study of literature. Any approach, however, can be likened to peeling an onion, removing layer after layer of meaning until the core of complete understanding and possible appreciation is reached. David Russell *(3)* outlines four steps in going from the basic level of word association through literal meanings and interpretation to the final critical appraisal. A doctoral dissertation by Andresen *(4)* is based on a Profundity Scale which moves through five planes, the Physical, Mental, Moral, Psychological, and Philosophical, to achieve the hoped for eventual understanding and appreciation which are the objective of any literary study.

Personally, I suggest a model based on Bloom's *Taxonomy of Educational Objectives*. Bloom's five objectives may be loosely labeled as knowledge, comprehension, analysis or synthesis, evaluation, and application; they are here adapted to lead the student gradually but insistently into the full complexity of any work.

1. The *factual*, almost the superficial, which assumes knowledge of the words themselves, the recognition of facts and details, the plot, story-line, or sequence of events.

2. The *analytical*, which seems to identify relationships among the events or facts—cause and effect, comparison or contrast—designed to cause the student either to change the quality of the idea, see it in a different light, or make some associative use of the material.

3. The *interpretive*, which involves understanding of what the details mean or what the author intends.

4. The *evaluative*, which demands some kind of judgment as to the author's position, his use of the material, its presentation or acceptability.

5. The *critical* or *creative*, which concerns the matter of relevance, of pertinence, of application whereby the reader, understanding the full significance of the author's intent, *reacts* to it—either accepting it into the framework of his own thinking or rejecting it; in either case, his values are modified or influenced by the experience.

Admittedly these categories are rather rigid but they do permit access to discussion, examples, and instruction. They are not meant to be inseparable layers, individual stages which must be followed, Dante-like, to reach understanding and appreciation. Just as the trained mathematician compresses sequential steps in reaching his solution, so too the more sophisticated student—both in reading skills and in literary study—will move rapidly through these steps to immediate realization. At advanced stages, some ellipsis takes place, several layers peeling off simultaneously with more or less immediate reaction to the impact of what has been read. Nor can every reader progress through all the levels; the less able or interested may never go beyond basic understanding of meaning, ignoring or failing to accept, evaluate, or apply. It is difficult to allocate specific literary techniques to a particular step. In a very simple poem, for example, the form and cadence may be essential to literal meaning; in another more complicated selection full realization may come only after extensive discussion of the images, rhythms, and ironic overtones embedded in the author's architecture.

Space permits but a single example to clarify and illustrate how instruction might ideally proceed. The literal meaning of A. E. Housman's "With Rue My Heart is Laden" is almost immediately evident; students grasp meaning, theme, and tone quite spontaneously. Its simple statement is not obscured by difficult words or severely poetic diction. Only two words, perhaps, "rue" and "laden," are unfamiliar because somewhat archaic, but the context easily reveals or sustains them.

The unsophisticated reader of poetry,

however—in this case, the average high school student—will fail to appreciate the delicate poetic devices by which the poet achieves his impact. Almost totally monosyllabic and perfectly iambic save for the feminine endings, the poem's understatement and restraint are essential to its success. The interplay of masculine-feminine rhymes provides thrust and some lightness to the subject, consistent with the sportive air associated with youth. The counterpoint of the two stanzas likewise contributes to the effect: in the first, the vowels are light, even the few heavy syllables being masked by the skipping quality of the total movement; the second stanza, using often the very same words, is slower and heavier, governed largely by the prolonged dark vowels and diphthongs of its first line. Moreover, the "light-foot lads" and "rose-lipt girls" in the second stanza echo the first stanza but contrast with them through syntactical transposition. Echo and reversal are unified with the final line in that the reader must recall—even glance back to—the first line of the poem which is the only real statement the poet wishes to make.

All of this contributes to the total effect of the poem, in this case hardly any "shock of recognition" because acceptance and verification are almost instantaneous. But the unwary reader fails to realize how many elements have coalesced to his satisfaction. The values of a poem such as this are inherently structural, the various elements all uniting to release the poignancy of theme and tone. There is no "big" idea here but certainly there are seeds for growth and maturity application to which even the teenager can respond. The stages or levels into creative reading, that is, realization of the values, are not distinct and separate. Literal meaning, as previously stated, is almost immediate; interpretation is induced through the careful analysis of diction, rhythm, and imagery in the poem. Evaluation, the students' overall reactions to the poem's success, can be elicited, but full realization of values is too personal to be assessed.

These steps, I insist, are best presented through questioning and discussion, not by explication or lecture. It may be time-consuming but it is preferable to lead students patiently through the route of discovery so they may retrace it themselves in other circumstances.

Other more demanding selections lend themselves more urgently to gradual unravelment. On initial reading, Keats' "Ode on a Grecian Urn," for example, generally baffles students; the subject matter is beyond their concern, and the poem itself seems to be a weird combination of abstractions, archaisms, allusions, rhetorical questions. The key to the entire poem is in the first stanza, in fact, in the opening lines. Step by step understanding can be developed: a certain amount of antecedent housecleaning—to recognize Keats as a very normal if highly sensitive human being; knowledge of the basic circumstances which provoke the work; study of the diction, particularly the key words in the opening lines, and of the rhetorical structure. Once these elements are acknowledged, then the full significance of the "frozen" quality of sound, motion, color—all the sensuous details—follows. Actually, students react most favorably when meaning is slowly unfolded to total discovery of the poet's perception of beauty, the service of language at his command, even the cleverly deceptive tableau he exultantly describes.

The same method can be applied with longer works, particularly when layers of meaning are artfully concealed from the casual reader. In fiction and satire—*Huckleberry Finn*, *Gulliver's Travels*, and *Alice in Wonderland*, for example—the literal meaning is evident even to very youthful readers. But the full significance of the work, the subtle or savage or delicate commentary on the human condition, can be recognized only after thorough study. *Huck* can be read on several levels (as has been exhaustively examined in the literature) and must be by secondary students because of its relevance to their own condition; the adventure story, the entire initiation rite, the sociological aspects, the deep ironies which lie at the heart of Twain's message.

Values in the study of literature, then, seem to be twofold — immediate and enduring, part process and part product: the one sharpening and heightening perception and apprehension of the work itself, the author's purpose and technique; the other leading to development and expansion of the person by increased awareness of self, the human condition, or beauty in its myriad manifestations. Every teacher must exploit fully the opportunities for enrichment and realization of the values which lie within the reading process itself and those which can be the product of the careful analytic reading literature demands.

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2. The Reading of Literature: Poetry as an Example

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AT THE OUTSET, let's clarify one or two presumptions. In my opinion the reading of literature is an ability which should be developed with students only *subsequently* in the English curriculum. In order that we make students competent to any degree at all to deal with literary selections *on their own,* we must be assured that two conditions are already present: (1) that certain basic reading skills have been assimilated by these youngsters and (2) that they have lived long enough to have accumulated a storehouse of experience to which they can relate the various literary selections they will be asked to read. It is contradictory to ask students who cannot read much of anything to read literature. Furthermore, literature can be enlightening when it sheds *new* light on something on which youngsters have already established some perspective.

Dwight Burton has suggested a highly useful three-step sequence for effective teaching of imaginative literature. To participate fully in any literary selection, a reader must first make an "imaginative entry." That is, he must be able to relate, to some degree, the experience described in the work to that which he himself has undergone. The "to some degree" is a vital factor in this first phase of understanding. The young reader does not have to have literally experienced that which occurs in the story he has read, he needs only to be able to call up experiences in the *general* area of the subject represented.

Obviously, then, works must be within the emotional range of the reader in order for him to have any chance of making such an entry. In the light of this, Burton feels that one of the teacher's important functions in promoting empathy between reader and work is to "select" for study those works which offer a legitimate chance for the student to use his experiences as a touchstone for imaginative entry.

Once an imaginative entry has been made, the reader's next concern, in Burton's eyes, is for the perception of meaning or central purpose of the work. This goal is most consistently and fully achieved by moving from particulars to universals, from the concrete "facts" of the work to the significance that they, taken as a whole, embody. Thus the process of moving toward realization of meaning is necessarily an inductive one. The finding of meaning in literature is a continuous process of predicting what is to come and then testing the validity of the prediction by relating it to what the reader finds as he progresses through the work.

The final stage of examination of literature for Burton is that of perception of artistic unity and significance. This perception, he hastens to add, is a level of realization reached by only a relatively small number of students. In other words, many may never participate aesthetically in the total impact of a writer's language. This contention, *I* hasten to add, has been well-corroborated in my own teaching experiences at the secondary level. And one of my greatest frustrations as an observer of literature instruction occurs when a teacher turns to his students at the completion of all-class reading of a given work and asks them to comment on its aesthetic impact—questions such as "How did you like this poem?," or "How did the author's style impress you?"—these without first finding out if they know what went on in the work, where, and when it happened, and to whom! Students cannot savour verbal finesse until they have first dealt with the facts of a work and their relationships, expressed and implied.

Although I find that Burton's concept of inductive literature teaching is very close to my own, I would like to take his three-step process as a point of departure and suggest some ways in which a teacher of literature, using the *forms* of literature in a purposeful sequence, may develop better understanding. Notice that Burton has laid primary emphasis on what the reader must do. The teacher is, more than anything else, a catalyst of literary understanding, interpretation, appreciation. Burton's process would be related to *any* work of literature regardless of its genre. It is my contention that if we as teachers move from one form purposefully to another with our student, it will make the application of Burton's theory a good deal easier, both for teacher and student.

My opening contention in this matter of form is that teachers of literature should consider starting with works of longer prose fiction, that is, novels. My rationale for this contention grows from the feeling that we should pick the student up where he most probably *is*. First of all, longer prose fiction tells a story, and it should be needless to reiterate that the overwhelming majority of young people enjoy stories. Whether they are superior readers, most younger students are quite accustomed to the narrative, whether it appears in printed or in oral form.

To implement most effectively my suggestion of using novels in the early stages of literature instruction, the teacher should find those novels which are conventionally written. As I define it, a conventionally written novel follows a clear chronological order in its development. The action involved in such work is mostly of an outer nature; that is, physical activity predominates, and the reader is clearly aware of this fact. There are few flashbacks; those which are used are clearly identifiable, and the sequence of events is seldom interrupted for a long period of time. Characters are also developed without obscurity. Dialogue is regularly punctuated, and the thoughts of individuals are labeled as such.

There is no need to pursue, I feel, the notion of conventionality in longer works of prose fiction. But the novel does offer us one further advantage as an introductory form of literature. The development during the past thirty years of the well-written junior novel has provided a great *range* of materials for individualizing classroom instruction in the reading of literature. We all recognize the grim fact that not all readers at any grade level read with the same degree of proficiency. In the study of literature, the addition of the junior novel affords the teacher a valuable implement. Moreover, these works most often portray a protagonist in *adolescence,* moving through situations very close to the literal experience of younger or less mature readers. This facet of the junior novel makes imaginative entry possible for a large number of students. It also allows the teacher to choose well-written but easy-to-read selections for students who have trouble in just plain reading. He can use junior novels as a springboard for exploration of more complex works on more mature topics.

Flexibility is something for which we of the teaching gentry all crave. Equipped with junior novels, long but conventionally written novels on more adult topics (the works of Kipling, London, Twain, and countless others, can represent this type), and the kind of longer fictional works that we as college students manfully ploughed through, the teacher can work with students who are at several stages of development.

The short story offers a vehicle with which we can make an excellent transition in moving students from "easier" to more difficult literary forms. (Although, at this point I should like to interject that the term "easy" is a very slippery one when applied to the *reading* of literature—readability formulas don't tell us much of anything about the relative conceptual difficulty of most imaginative works.) While the short story is obviously still *fiction*, exemplary works often contain some special problems of which students will be largely unaware unless they are led to recognize and deal with them. The problem of reading the short story is not aided by the fact that there is considerably less adolescent fiction to be found in this abbreviated form. While there are undeniably some worthwhile collections of junior short stories available today, the great majority of shorter fictional works studied at the secondary level and widely anthologized for that purpose are quite adult and sophisticated. Thus the teacher will frequently find himself faced with the inescapable responsibility of dealing with short fictional works which present one or more significant structural difficulties.

Opening paragraphs in most short stories are crucial to the understanding of the work. With *much* less room to maneuver than his novelist counterpart, the writer of the short story must invest great significance in some relatively sparse and often trivial seeming detail. The student who is not on the lookout for these opening clues will almost invariably develop a confused or distorted idea of the direction in which the work is moving.

Time sequences are juggled about with abandon in modern short stories. Since the writer is typically presenting only a slice of life, he must often "play about with his clock" as E. M. Forster would say, in order to place in sharpest focus those details he wishes to emphasize. The result is often a series of abrupt transitions in scene, unexpected flashbacks, and puzzlingly underdeveloped situations. The student who is used to reading conventionally developed, longer fictional works may be jarred by these sharp turns and bumps in the road.

Further complications exist in short stories, particularly those written within the last fifty years. Freudian influences have led many writers to concern themselves increasingly with the exploitation of the inner nature of man and to devote a good deal of attention to the disturbed person's outlook on life. The result has been a great deal of experimentation with such stylistic devices as stream of consciousness, interior monologue, etc. Students who cannot follow such nuances will obviously have trouble grasping the contribution which certain characters have made to the story as a whole. When writers add conscious ambiguity to the statements, reflections, etc., of their characters, the untrained reader becomes further confused.

Anti-climactic endings add to the difficulty in interpreting significance in short fiction. The student who has read longer, conventionally written prose works becomes accustomed to the piling up of a welter of evidence leading to a decisive climax. He learns to anticipate such inexorably moving plots and thus may be irritated and disconcerted by the ending which offers no resolution or triumphal confrontation. Hemingway's *Killers* has often had this effect on my high school students. They are vexed by the utter futility evinced by the two main characters in the closing lines of the story.

In the light of all of these structural irregularities, the student who would become a careful and ultimately *satisfied* reader of well written short fiction must come to two major realizations. First, he must recognize that most short stories feature *compression* of idea. Much is said in a few words. Much is left for the reader to infer and relate to his own literal experience. A few lines in a short story can evolve a good deal of frequently wide ranging reaction, and ambiguity is always possible in interpretation. It is in the perception by the student of the significance of this compression of *idea and impression* that the reading of the short story can have value as a transitional activity.

Furthermore, because of compression, the great necessity for slow reading of this form must become gradually more evident to the student. He must move away from the casual inspection, the skimming which has probably characterized his reading of longer, conventionally structured novels. He must make meticulous note of *each* part, regardless of how seemingly insignificant, as it relates to the whole. When the impact of compressed meaning is fully sensed by the student of literature and when slow, careful reflective reading becomes part of his approach, he may then be ready to joust with poetry, the most difficult literary form for him to read.

For several reasons, poetry presents the greatest obstacle to the teacher who would lead his students to the effective reading of literature. One immediate reason is that poetry, unlike prose fiction or drama, does not necessarily tell a story. Much of the poetry which young people must read even as early as junior high school, develops an abstract idea or establishes a proposition concerning human experience. Some poetry is not even idea-centered; it merely creates an aesthetic impression. Consider the effect of Ezra Pound's famous imagistic work "In a Station of the Metro:"

> *"The apparition of these faces in the crowd;*
> *Petals on a wet, black bough."*

The student who is looking for a story in this work is certainly doomed to disappointment. Because the *ways* of so many poems are simply not narrative ones, readers who are unprepared for this fact may well be troubled by a search which goes unrewarded. If you recall, Burton has reminded us that perception of aesthetic impact occurs in only a small minority of readers. In the poem just quoted there isn't really much else to be gained.

A further complication, in the study of this form, is that there is not much range in its difficulty levels. There is little or no *transitional* poetry. While the junior novel which I described a few moments ago has flourished during the past thirty years, the junior poem is still looking for a champion. Most poetry with which students must deal is based on adult situations, represents abstract themes, and is highly complex of structure when compared to the conventionally written novel. Since there is no appreciable fund of adolescent poetry to augment such instruction, the teacher must come to terms, and realistically so, with the reading problems which the medium presents.

Probably the greatest difficulty to be found in the reading of poetry lies in the pronounced irregularity of its structure. By "irregularity" I mean that the form of the work is so vastly different from that which students are accustomed to reading that it continues to frustrate a large number of them. It has been my belief for many years, incidentally, that teenage boys do not really reject poetry because it is "fairy stuff" or "fruity;" this opinion, I feel, has become an institutionalized rationalization. The major reason boys retreat from poetry is that poetry is difficult to read, and so many secondary-level boys are inefficient readers. To go further, much of the reason that poetry has failed to interest and relate to young readers in general is that teachers have often emphasized the wrong elements, have compulsively continued to putter about among the metrical ornaments of verse while neglecting to sense and deal with the real reading problems which the form presents.

Of the legion reading difficulties inherent in the poetic form, I shall identify and illustrate only a few. What I would ask is that, as I catalog these difficulties, you continue to remember they are almost invariably occurring simultaneously in the work being studied. In other words, several aspects of the reading of a poem are troubling a student *at the same time*.

One obvious structural irregularity is that, in order to create impressions through rhythmical patterns, the appearance of lines of poetry differs sharply from those of prose fiction. In response to the charge that much of his poetry was difficult, the American poet, E. A. Robinson was once quoted as saying, "If they would only read my sentences!" Of course what Robinson has failed to mention was that many of the conventional characteristics of prose sentence structure are missing in poetry. Each poetic line is capitalized. Punctuation is irregular. Thoughts are often interrupted or ended *in medias res*. Lines are ended to accommodate rhyme rather than necessarily to facilitate syntactic flow. In fact, one of a young reader's major confusions in early bouts with poetry may stem from his wish to stay with the lilt of the poem rather than to pursue it primarily for *meaning*. Allow me to illustrate this by reading a few lines from a poem with which I know you are all familiar.

That's my last Duchess painted on the wall,
Looking as if she were alive. I call
That piece a wonder, Now: Fra Pandolf's hands
Worked busily a day, and there she stands.
Will't please you sit and look at her? I said
"Fra Pandolf" by design, for never read
Strangers like you that pictured countenance,
The depth and passion of its earnest glance,
But to myself they turned (since none puts by
The curtain I have drawn for you, but I)
And seemed as they would ask me, if they durst,
How such a glance came there; so, not the first
Are you to turn and ask thus.

Now notice what happens when I take a slightly different tack in my reading:

(Read above passage again.)

When metrical analysis and identification of rhyme scheme become issues of paramount importance in the teaching of poetry to young people, this kind of distorted reading can easily result.

Word order in sentence structure is a vital factor in the transmission of meaning in the English language. The linguists tell us that somewhere between 75-80 per cent of the sentences produced in our language follow the subject-verb-object pattern. Young readers are most comfortable reading sentences written in this pattern. Therefore, the inversion of word order, the abrupt inclusion of single word and/or phrase modifiers, and other such machinations will create reading problems for the uninitiated. Notice in this next poem by Walt Whitman the time it takes the poet to get to the subject of his discourse and the distance he puts between his subject and his verb.

Out of the cradle endlessly rocking,
Out of the mocking-bird's throat, the musical shuttle,
Out of the Ninth-month midnight,
Over the sterile sands and the fields beyond, where the child leaving his bed wander'd alone, bareheaded, barefoot,
Down from the shower'd halo,
Up from the mystic play of shadow twining and twisting as if they were alive,
Out from the patches of briers and blackberries,
From the memories of the bird that chanted to me,
From your memories sad brother, from the fitful risings and fallings I heard,
From under that yellow half-moon late-risen and swollen as if with tears,
From those beginning notes of yearning and love there in the mist,
From the thousand responses of my heart never to cease,
From the myriad thence-arous'd words,
From the word stronger and more delicious than any,
From such as now they start the scene revisiting,
As a flock, twittering, rising, or overhead passing,
Borne hither, ere all eludes me, hurriedly,
A man, yet by these tears a little boy again,
Throwing myself on the sand, confronting the waves,
I, chanter of pains and joys, uniter of here and hereafter,
Taking all hints to use them, but swiftly leaping beyond them,
A reminiscence sing.

If we were to use a readability index which included the prepositional phrase factor to judge the level of difficulty of this poem, it would probably turn out to be pretty high.

As in the work I have just read, sentences in poetry are quite frequently of outrageous length. From early reading and writing experiences, we stress with our students the need for control of sentence length. Reasonable sentence length is an important feature of basic reading materials. Most conventionally written prose fiction (I shall exclude the works of such people as William Faulkner and Henry James from this category) is exemplary of attention to control of length of syntactic expression. Not so in poetry. Here is the opening sentence, always a crucial one, from "Paradise Lost" which we all labored with back in the halcyon days of our youth.

> *Of Man's first disobedience, and the fruit*
> *Of that forbidden tree whose mortal taste*
> *Brought death into the World, and all our woe,*
> *With loss of Eden, till one greater Man*
> *Restore us, and regain the blissful seat,*
> *Sing, Heavenly Muse, that, on the secret top*
> *Of Oreb, or of Sinai, didst inspire*
> *That shepherd who first taught the chosen seed*
> *In the beginning how the heavens and earth*
> *Rose out of Chaos; or, if Sion hill*
> *Delight thee more, and Siloa's brook that flowed*
> *Fast by the oracle of God, I thence*
> *Invoke they aid to my adventurous song,*
> *That with no middle flight intends to soar*
> *Above the Aonian mount, while it pursues*
> *Things unattempted yet in prose or rime.*

Certainly there are other problems here as well (I ask you once again to remember that all the problems I mention are present simultaneously), but it must be conceded that it takes a trained and aware reader to sustain understanding of the main idea in the sentence I have just read.

Poets also utilize unusual words, dialect, and historical allusions throughout much of their work. The ease of understanding of much verse is further reduced by expressions which appear in crucial places and are of central importance to the poet's purpose. In the third stanza of "Sailing to Byzantium," William Butler Yeats says

> *"O sages standing in God's holy fire*
> *As in the gold mosaic of a wall*
> *Come from the fire,* pern in a gyre
> (accent mine)

If you don't know ancient Celtic you probably won't understand what the critics tell us is a most important phrase not only in this work but to all of Yeats' poetic thought. Dialect can be particularly troublesome because it seldom occurs here and there but usually permeates the entire selection. In case you have forgotten, here is a slice of a poem by Robert Burns.

> *When chapman billies leave the street,*
> *And drouthy neibors neibors meet;*
> *As market days are wearing late,*
> *And folk begin to tak the gate,*
> *While we sit bousing at the nappy,*
> *An' getting fou and unco happy,*
> *We think na on the lang Scots miles,*
> *The mosses, waters, slaps and stiles,*
> *That lie between us and our hame,*
> *Where sits out sulky, sullen dame,*
> *Gathering her brows like gathering storm,*
> *Nursing her wrath to keep it warm.*

Since the poem continues like this for several pages, and I have already demonstrated quite dramatically my ineptness with this stuff, I shall not proceed. It is important to remember, however, that in the study of English literature, dialect abounds in poetry written at least through the 17th century. *And this constitutes the first several months of study in an anthology-oriented senior high school course.* To deal effectively with the Burns poem, you must be able to handle the printed representation of late 18th century Scottish dialect.

Continual use of historical and mythological allusions is characteristic of renowned poets from all eras and of all nationalities. When such allusions are unclear to the student, he often fails to perceive both the idea that the poet is trying to communicate and the force with which it is conveyed. Here are the opening stanzas of Matthew Arnold's "Dover Beach."

> *The sea is calm tonight,*
> *The tide is full, the moon lies fair*
> *Upon the straits;—on the French coast the light*
> *Gleams and is gone; the cliffs of England stand,*
> *Glimmering and vast, out in the*

tranquil bay.
Come to the window, sweet is the night-air!
Only, from the long line of spray
Where the sea meets the moon-blanched land,
Listen! you hear the grating roar
Of pebbles which the waves draw back, and fling,
At their return, up the high strand,
Begin and cease, and then again begin,
With tremulous cadence slow, and bring
The eternal note of sadness in.
Sophocles long ago
Heard it on the Aegean, and it brought
Into his mind the turbid ebb and flow
Of human misery; we
Find also in the sound a thought,
Hearing it by this distant northern sea.

Notice that the first stanza is straight, relatively clear description. Slow careful reading should be enough to comprehend both the situation and to infer the *mood*. Arnold, however, sees fit, at the beginning of the stanza immediately following, to allude to a major tragedian from classical antiquity. Thus, if the student doesn't know who Sophocles was and, more important, what his religious beliefs were, that vitally important allusion will confuse rather than clarify. And don't forget, it happens that there is only one such allusion in the poem I just read from. Where would we be in treating "The Waste Land" if we didn't know all truth about Eastern and Western culture through the ages?

Logically, we can next turn to the whole matter of figurative language in poetry which has always presented great obstacles to understanding for all but the most sophisticated of readers. Certainly one of the main problems in reading this form is that poets juxtapose unusual objects and ideas with great frequency. Eliot's comparing of an evening sky with an etherized patient in "The Love Song of J. Alfred Prufrock" is probably by now one of the truly classic examples of this. Whenever meaning is to be conveyed by allusion, a potential problem in communication exists. In setting up his association, the writer hopes that by comparing something less familiar (his main object or idea) with something *more* familiar to the reader, that the former will then become more easily perceived. The real problem exists in the fact that the reader (and particularly the *young* reader) may not be as familiar with the part of the allusion which the writer hoped him to be. Thus, if the reader cannot conjure up a lucid and complete image of an etherized patient, then Eliot's comparison is done for in this instance, and the poet has confused where he hoped to clarify.

Much can be done, I would contend, in the analytical teaching of figurative language to help less mature readers with problems in understanding such as I have just described. If we would teach *metaphor* for what it is, a basic and widespread means of conveying information and ideas, then our students would probably have a better chance to work with it successfully when it occurs in poetry. As S. I. Hayakawa has been saying for years, metaphor is a fundamental component of our language. In everyday speech we juxtapose the unusual for clarification, emphasis, variety, humor. We say, "I'm dying to meet him," or "This box weighs a ton," or "They're in another world." Too much time, however, is spent by teachers in identifying terms such as simile, metaphor, and personification purely as ornaments of poetry. Students memorize definitions for these terms, then sleuth about for them in the works they read. If these same youngsters were shown the omnipresence of metaphor in *their* language and the relationship of the figurative which occurs in everyday discourse to that found in the poetic work, they would probably understand a greater number of the allusions in selections they are assigned to read.

One thing is sure; we must teach the significant place which metaphor occupies in the search for meaning in poetry. There is virtually no poetic language which is totally devoid of the figurative. It is a chief device by which a poet compresses meaning as he crowds a good deal of thought provoking allusion into a superficially simple figure.

As time closes in and coughs when I would expound, I wish to mention one final feature, found in much verse, that if overlooked by the reader will most certainly weaken the impact of the work on him. Most writers of poetry quite often employ single words and patterns of words for the purpose of evoking emotional reaction largely through tonal effects of these words and patterns. Here is a short poem, "Dead Boy," by John Crowe Ransom in which, I believe, we have an example of such a device.

The little cousin is dead, by foul

material deleted
due to
copyright
restrictions

and shaken.

If the reader does not respond to the grating, rasping sound made by "old tree's late branch wrenched away" in the next to last line of the final stanza and the quiet closing provided by the sibilants "s" and "sh" in the final line, then, in my opinion, he has missed something. But, it must be remembered that this kind of appreciative reaction may not come to large numbers of students. As teachers, we may help our students through an inductive approach to realize the significance of such juxtaposition for themselves, but we cannot and should not teach them by edict. It goes without saying that effective oral reading by the teacher could be a great influence in areas of poetic consideration such as this.

During this discussion I have tried to point out the pitfalls apparent in the teaching of reading of literature in general and of poetry in particular. I hope that by some of my remarks, I have indicated means of dealing with these difficulties. These things we know: that poetry is "hard" in part, at least, because it has a narrow range of difficulty; *i.e.,* most of it is tough to comprehend; further, that meaning in poetry is greatly compressed, thus calling for slow reading, frequent rereading, and much associative activity; also, that poetry is most irregular in structure, that it *looks* different from conventionally printed matter thereby forcing the reader frequently to reconstruct it mentally into "ordinary" dress in order to gain its meaning. And that, finally, the several aspects of difficulty in poetry are usually functioning at the same time, thus adding to the complexity of our teaching task. Maybe, by applying Burton's three-step process of induction, we can help puzzled and discontent students with heretofore baffling works. Maybe by moving systematically from the more conventional to increasingly irregular literary structures, we can assist the student in making the most of his *strengths* in reading. Maybe by using both of these plus a little individual attention, we can lead students to the point where they will say, "Hey, I like this one," and really mean it.

D. COLLEGE LEVEL

1. The Enjoyment of Play-Reading

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TO THE EXPERIENCED and habituated reader of dramatic literature, the necessity for training in such an enjoyable activity as reading a play is far from clear. But to the teacher of English or foreign literatures, it is most apparent that students require guidance and instruction in the art and appreciation of play-reading. And to the teacher of reading, it is still more conclusively evident that effective and rewarding reading skills are necessary for the young or immature readers who have not yet realized just what is involved in reading dramas.

There is no need to despair, however, as Hugo Hartig notes:

> They can learn to recognize effective writing when they see it, and to know why it is effective. They can learn to enjoy literary ideas *(1)*.

But Hartig goes on to remind us that people do

> have a basic desire to share experience and to understand themselves and society. The literary experience is the great means to meeting this basic human need. Thus we may be confident that students have the basic need and incentive for the study of literature. They have the potential interest. . . . Mostly we need to show them where their interest lies.

Hence it is one of the undeniable obligations—and privileges—of the reading instructor as well as the teacher of literature to inculcate among his students principles of understanding and appreciation for reading drama. Nor is this an impossible task.

Drama Written as Narrative Designed to be Presented

For drama is but one particular kind of narrative, and almost every human being has some interest in stories about other human beings. The student-reader may have had little or no experience with biography and autobiography, historical recountings, the short story, or novel. But he can hardly have progressed far beyond the confines of his cradle without having been told or having read narratives of ordinary and extraordinary events. So he has long since become interested in learning what happens in a particular sequence of actions. Of course, in everyday life, the happenings do not invariably work up to a high degree of significance or crisis for the characters or to a climax or turning point in the plot or main situation. Still, even the inexperienced and young do have a fundamental awareness of events and their sequential relationships, and nearly everyone enjoys a story with a climactic or definite conclusion. So there is a foundation of interest and of ordinary human experience upon which to build further understanding.

Moreover, the fact that drama is a form of narrative that was designed and written to be presented, to be acted out upon a physical stage by live actors, is not a deterrent to understanding and appreciation of the reading of dramatic literature. It is a challenge and a source of great pleasure. But from the very outset, student-readers must be made fully aware, must be reminded repeatedly, that their silent reading is to some degree and in some respects a hindrance. The author-playwright gives his actors and stage directors and property managers dialog, descriptions of the set, and details of the objects to be seen or used by the members of the cast. Unlike the novelist, however, the dramatist does not and can not supply—except by the means already noted—the kind of analysis that the writer of fiction or poetry expends most of his energies on. So it behooves the reader to develop the habit of imagining the motivation, the tones of voice, the minor actions which an experienced actor will invent—everything, in short, that will bring the dialog into convincing and immediate acceptance of the person speaking as a living being. Without this artistic skill, the reader of plays gets little more than mere words. With it, the drama-reader gets enjoyment, satisfaction, and at least some of the insight into human nature which the author seeks to expound. Hence, the very foundation of successful play-reading is an ever increasing awareness of the dramatic nature and qualities of the printed dialog and stage directions.

Once a realization of this cooperation between the playwright and the reader's imagination is being fulfilled, the student-reader should be ready for the consideration of the basic techniques of drama. In fact, he will understand and readily accept the definition of a play as a presentation in dramatic and characterized manner of a story by means of dialog and action.

Understanding of the Function of Each Act

With this definition in his mind, the reader should be most easily led to appreciate and be ready for the demands upon him in each act of a conventionally constructed play.

Since most stories—and plays—are based on conflicts or a conflict, the instructor will wish to prepare readers for the usual introductory and highly essential matters dealt with in Act I. By contrast with the reader of novels or short stories or the spectator in the theatre, the reader of plays is at a distinct disadvantage in the first scenes. Modern dramatic writers present their audiences with a great deal of exposition as quickly as possible so as to get on with the development of the conflict. This exposition consists largely of supplying all the information essential to a clear understanding of the past of the major characters and likewise of enough information to prepare the reader-audience for future actions, thoughts, strengths, and weaknesses of the cast of characters. Hence, the exposition is obviously vital, fundamental to the comprehension of the whole drama. As a consequence, the reader may be advised to proceed more cautiously and to look for more clues of what the characters' backgrounds may be, of what their qualities and circumstances may lead to, than in the succeeding portions of the play. With thoughtful and concentrative attention to details, the reader will have ordinarily, by the end of the first act, some exact knowledge of the age, history, hopes, and desires of the major persons involved, a fair understanding of their intentions, and some very good ideas of what the actions and interactions of these personages will come to.

The more skillful the playwright, the more readily will the reader-audience have recognized and understood all these details. But the exposition sets forth not only the past and presumed future of the characters but also provides enough suggestion of the forces operating within the group of people, or the effect of the setting upon the personages, or the contradictory elements within the nature of the major characters to give the reader awareness of the conflict which will become appreciably inevitable. Thus the complication is plain to audience and reader. And the more deftly the dramatist makes his complication interesting, though unresolved and puzzling, the greater is the suspense. So the nature of the conflict, of the complication, and of the suspense is developed in the first act. If the reader attends to these elements well, he is amply ready for the succeeding parts of the drama.

In the case of the older five-act structure, it should be realized by the reader that the exposition, character presentation, and development of conflict through complication are simply set forth more leisurely within the confines of two acts rather than one. Hence, the modern second act is Act III in Shakespearean tragedy, and the materials of Acts IV and V are given in a present-day third or final act. To all intents and purposes, Acts I and V of the older form have been eliminated with the consequent compression of essential introductory matter into a single act and definitive concluding information into just one final act.

For the inexperienced reader of plays, Act II should present the least of his problems. If the expository process has been effective in the first act, he is prepared for the development of the plot to —or nearly to—its final outcome. Suspense is built up, characters are more amply delineated; the conflict progresses to the turning point for the principal characters. Thus the rising action which was begun in the closing moments of Act I is advanced very strongly in the second. So Act II serves further to advance the author's ideas and to prepare for the ultimate outcome.

Thereafter, the crisis or climax may come about very swiftly after the turning point, or it may result from what is termed "falling action." In any event, the third act moves to its ending, resolving the suspense and bringing final interpretation of the author's major ideas through the logical consequence of the premises laid down in the early portions of the drama.

As opportunity presents itself, the reading instructor may go beyond this structural approach in the training of his students for the reading of dramatic literature by introducing discussion or commenting so as to develop clear ideas of such terms and circumstances as the following:

foreshadowing
dramatic irony
problem play
flashback
delayed action
aside
tragedy, comedy, melodrama,
  comedy of manners
satire, burlesque, farce
realism, naturalism, romanticism

Of course, merely to state definitions or cite examples will scarcely suffice. But as the student continues to read plays, he will find increasing need for such concepts as those mentioned, and many others, and he should be frequently encouraged to utilize them for his interpretation.

The Art of Play Reading

It should be noted with emphasis, however, that these critical tools which the reading instructor provides his students are but the initial means, the mere foundation of play-reading for pleasure. Much more significant are the appreciation of the subtleties of plot, of the various artistic and practical devices for developing and portraying character, and of the author's theme, ideas, biases. For as he acquires skill and understanding, the drama-reader must be led and encouraged to give thoughtful care to matters of character delineation and to the playwright's particular interpretation of human life and its complexities.

Henceforth, the reader should concern himself with such topics as those represented by what Wayne Booth calls a "rough-and-ready five-fold division," in his stimulating and valuable essay entitled "The Use of Criticism in the Teaching of Literature." Booth lists the following as guidelines for thought and analysis:

1. Questions about the work itself or about how it is put together;
2. Questions about its author or about how the work is related to him;
3. Questions about the audience and how the work related to it;
4. Questions about the universe, or world, or truths the work reflects, or the beliefs held by the reader;
5. A catchall, historical group of questions about the other causes of the work's being what it is—historical and conventional influences of various kinds *(2)*.

It is, of course, well understood that not every play—or every reader of any play—will wish or be able fully to use all these questions or approaches. But at this stage, the reader is no longer just coping with dramatic technique or structure. Instead, he has moved into the realm of drama as an art, an art as old as the predecessors of Aeschylus, Sophocles, or Aristophanes and as current as the play first produced the day before the student sits down to the printed matter before him.

As he grows, the reader himself gains further appreciation of dramatic interpretation—on the page, on the stage, or on the occasions in which he must evaluate and assess the thoughts and actions and purposes of the people with whom he associates. Almost anyone can read the words of a play. But it takes interest, knowledge, and experience fully to enjoy and understand the artistic qualities of a dramatic masterpiece. And the skillful reading instructor may provide motivation and insight which will enhance the student's pleasure at every stage of his development into a truly accomplished reader of dramatic literature.

REFERENCES

1. Hartig, Hugo. "Why Do They Hate Literature?" *Reading Improvement,* 2 (Winter, 1965), 39-42.
2. Booth, Wayne, *College English,* 27 (October 1965), 7. The set of five questions is slightly altered in phraseology from Booth's words, only to suit the context here.

2. Meeting the Reading Demands of Literature

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A FEW PRELIMINARY considerations seem necessary in order to indicate the limits of this discussion concerning the reading demands of literature. First, we assume that the reader possesses the basic reading skills which provide a foundation for the development of the special abilities required to cope with literature. Fries *(4)* describes this level of proficiency which allows the reader to respond to the language with no impediment from inadequate reading skills as the stage "when the reading process itself is so automatic that the reading is used equally with or even more than live language in the acquiring and developing of experience. . . ."

Second, we will not be concerned here with the limitations within the reader, those limitations imposed by his general level of maturity and the range of his past experiences. Richards *(5)*, working with his students' interpretations of literary passages, included among such limitations

1. Conventional or stock responses which may indicate mere verbalization and little real thought or feeling,
2. An unsuitable degree of response: the exaggeration of sentimentality or the lack of response caused by inhibition or insensitivity; and
3. "Doctrinal adhesions" or biases determined by preconceptions.

Although this is not to say that such limitations cannot be modified through the study of literature, our concern here will be with specific skills and techniques which can be developed within these limitations.

Certain general learnings provide the essential frame of reference for reading literature. Burton *(2)* suggests a four-layer description of the structure of literature saying that all teaching of the skills of reading literature takes place in this general context:

Layer 1—Themes which develop from four basic relationships: Man and deity; man and other men; man and nature; man and himself.

Layer 2—Modes, of which there are four basic ones — romantic, comic, tragic, and ironic.

Layer 3—Genres, of which the modern imaginative ones are novel, short story, poem, and play.

Layer 4—The individual selection.

An awareness of the basic dichotomy in literature provides additional background. Center *(3)* makes the customary useful distinction between the two classes of creative writing. The first of these, DeQuincey's literature of knowledge, is utilitarian, concerned chiefly with external reality. The writer's aim is to enlighten the reader. Another body of writing, DeQuincey's literature of power, is the product of the creative imagination.

> The writers, or composers, are free to associate ideas, to present images, to do whatever in the wisdom of their aesthetic sense and creative mood will persuade the reader or listener to respond to the writers, thoughts and emotions and to re-create the writers' experiences, as far as the reader's experience permits.

Realization that the two general classes of literature are precise in different ways, one dealing with facts and ideas and the other with attitudes or states of mind, prepares the reader to accept what Stocking *(6)* refers to as the importance of the useless by saying that when we move beyond intellectual content to emotional suggestion and literary effects, we are concerned with things important for their own sake.

Knowledge of the most characteristic attributes of each literary genre gives the reader additional background and clues to meaning.

Many readers learn independently to enjoy novels. They read for the enjoyment of a good story and become expert at following plot and characters. Awareness of the complexities of plot and subplots, of the delineation and development of character possible in a work of novel length prepares the reader to look for complicated patterns and changes as he interprets the significance of the author's contrivances and arrangements.

Drama and the short story are alike in that much has happened before the action begins and that both deal with people in conflict. In drama, the reader must note particularly the significance of dramaturgical devices such as the placing of scenes and the timing of entrances and exits; and he must be able, above all, to visualize what is happening. In the short story the reader needs to be conscious of definite progression to a decisive turning point or denouement after which the entire story is seen in new perspective.

The conventions of poetry make it particularly difficult for the unsophisticated reader. The demands of rhyme or other sound effects and the restrictions of stanza or meter patterns lead to inverted grammatical structure. Much meaning is compressed into few words and ellipsis is common. The reader who is aware of these special problems of poetry will clarify syntax first of all.

With adequate basic skills and some general literary background the reasonably mature reader is prepared to go beyond the literal meaning to interpret the author's tone and understand his intention. The author reveals his feeling toward subject and reader indirectly through shifts of tone, through symbols and images, and through rhetorical devices.

Irony is a mode of speech in which the author says exactly the opposite of what he means. Swift's satire "The Modest Proposal" is often quoted as an example. Swift calmly proposed that the starving Irish eat their babies. The contrast between statement and intended meaning is more forceful than a direct plea could be.

Metaphor is a different way of saying one thing and meaning another. It indicates elements of similarity between two essentially unlike objects. Brooks and Warren *(1)* call attention to the vigor and compactness possible with metaphor, pointing out that sometimes it represents the only way in which a particular thing can be said at all. They illustrate:

> In the sentence that follows, Helen Keller describes what tactile sensation means to a person who has always been blind and deaf: "The immovable rock, with its juts and warped surface, bends beneath my fingers into all manner of grooves and hollows." The rock, of course, does not literally bend; it is "immovable." But under her sensitive fingers, which do duty for eyes, the rock itself seems to respond dynamically to her touch. For what is being described is not the fumbling of an ordinary person who is blindfolded. We are, rather, being let into Helen Keller's "world," a world of exciting qualities which most of us do not know at all. Metaphor here is the only means by which it may be made known to us, since this world does not exist in our experience and cannot be pointed to; it can only be created for us.

Metaphor is the only way to express Miss Keller's unique experience, but it is equally important as a way to express our unique responses to common experiences.

Symbolism is a third kind of literary device which the reader must interpret for fullest meaning. Irony implies ideas opposite to those expressed; metaphor implies the abstraction of similar qualities in things which are literally different; symbolism permits objects and events to stand for some deeper meaning, so that two purposes are served: the inexpressible meaning is indirectly expressed and several levels of meaning are expressed simultaneously rather than in succession.

The reader who is sensitive to the author's tone and intention, who can interpret the author's use of rhetorical devices is able to appreciate the way in which design and meaning are inseparable aspects of the author's creation.

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MATERIALS OF READING

A. PRIMARY LEVEL

1. Correct Use of Basal Readers

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APPROXIMATELY 95 per cent of today's schools use basic readers. In light of this recent estimate, we cannot over-emphasize the importance of using the basic readers effectively for consistent, orderly, systematic, and sequential development of basic reading skills.

Recently I was given the responsibility of studying most of the basic reading series currently on the market. The analysis revealed that those published by the major companies have many points in common, and I am convinced that children can learn to read by using any one of them. If you have taught as long as I have, at some time or other you have used most of these basic readers and you have taught children to read. We each have our own professional opinions, of course, as to which series can help the teacher do the most efficient and effective instructional job in reading.

Any basic reader to be used effectively requires that the teacher study and have an understanding of the authors' philosophy, that she be familiar with the organization of the teacher's edition, and that she implement the teaching units according to the authors' plan.

The reading series you have can be only as effective as the teacher makes it. Too often the basal reader is thought of as a collection of stories, and the teacher honestly believes that she has taught a basal reading lesson because the children have read a story from the book labeled "basal reader."

The How-To Book

The stories in each basic reader are interesting and the children do enjoy reading them. The basal reader, however, is the skills text and is not intended to be thought of as an anthology. Keep in mind that reading is a skill and not a subject. No one reads reading. Do not become so concerned with teaching children to read that you neglect to teach them *how* to read. The basic reader is the "how to" book. This is its chief purpose.

The stories in these particular books are carefully selected for a definite purpose. They provide appropriate reading material to encourage concentrated practice in specific basic reading skills. You know the skills – word-attack, phonetic analysis, structural analysis, comprehension, listening, interpretation of punctuation marks, voice intonation to convey the author's intended meaning, and so on.

These skills lessons are the heart, the keystone, the reason for the basic reader's being. Are you ever tempted to omit a part of a lesson plan because you think the group has acquired a particular skill? The next time you are tempted try a little sampling of the skill to be certain that the pupils have mastered it before you skip it.

Each basic reader provides repeated opportunities for the reading teacher to analyze each child's reading problems and to assess daily his progress in basic skills. If these opportunities for diagnosis, reteaching, and reinforcement are not taken advantage of, the child and the teacher soon reach the frustration level for reading instruction.

Reading Skills in Content Areas

Now, you have taught the basal reading lessons the right way and consequently you have instilled the reading skills that will make the child an independent reader. What happens when you have finished with the lesson in the basic reader?

Here is one graphic way to help you visualize the tie-in of the skills lessons with every other reading situation. Draw an outline of your hand. Across the palm letter the two words Basal Reading and label the five extended fingers Creative Arts, Language Arts, Social Studies, Mathematics, and Health-Science. The analogy is that you need to have the basic reading skills in the palm of your hand, but you must not stop there. It is just plain common sense that these reading skills flow consistently into every area of the child's school day – his social studies, spelling, mathematics, science, or directions on the chalkboard. I recently showed this idea to a friend who made the comment, "How unfortunate it would be if we had only the palm or only the fingers." Competency in the essential reading skills is necessary if pupils are to read with understanding in the content fields. Children must apply reading skills throughout the day in every curriculum area to help them acquire the specialized vocabularies and to read the content subjects with comprehension. It will be a red-letter day when children demand meaning from all written material and settle for nothing less.

To illustrate the carry-over of these skills into the content areas, I like to recall an experience of a third grade social studies class. The basic readers used by this group had many figures of speech which required lessons on interpretation. The social studies lesson was centered around neighborhood pets and some of the problems they created. One paragraph stated that the neighbors thought two black lambs were all right but a goat was the last straw.

The class was asked what the phrase "the last straw" meant to them. After some interchange between pupils and teacher, one boy excitedly announced, "The neighbors do not mind the two black lambs but that goat has got to go!"

Readiness Book—A Skills Text

Now, let's take up the readiness book – the first textbook in the majority of the basal reading series. Teachers must recognize, realize, and understand that the readiness book is an important part of the basal reading program. We are aware, of course, that some readiness programs offer more than others.

Occasionally a teacher seems to think of the readiness program as a waiting period and believes that basal reading really begins with the first pre-primer. The pupils, as well as the teacher, need to recognize that the readiness book is a basic reader, a skills text, and that every page is there for an important and specific purpose. We can not over emphasize the fact that the pupil's mastery of the skills taught in the readiness program is basic to his future success in unlocking the printed word.

As recently as last fall I heard of a first-grade class that "went through" a sixty-four page readiness book in nine days. I strongly question whether the teacher understood the purpose of the readiness program or how to teach the important lessons the book contained. I do not believe that those pupils learned the fundamental skills that the readiness program provided.

Reading Makes Sense

The teacher who is overjoyed that a child has learned to *say* the printed words may be enthusiastically accepting word calling for reading. This is regrettable. From the very beginning it is the teacher's professional responsibility to work diligently throughout the day every day to help each child realize that the words he reads should sound as if he were talking. If he is reading conversation, his voice should sound as it would if he were the character. If he is reading narration, help him understand that he is the storyteller and must make it interesting. Please do not allow him to settle for anything less than his best. Incidently, the child's natural flow of speech is the teacher's best guide for what she has a right to expect from the individual pupil in oral reading.

All this is hard work and takes consistency, persistency, and untold patience. I must say that I know of no easy or magic way to teach a child to read. Experience and observation have led to the conclusion that it is accomplished by main strength and awkwardness.

As you work with beginning readers, bear in mind that they have many concerns and problems other than the interpretation of those abstract symbols – the first being how to hold the book and even how to turn the pages. There are ways you can help overcome some of these distractions. For example, a first-grade group was reading in a halting manner with pauses between words. This was aptly described by one little girl in the group as "leaving spaces with your voice." The reading lesson was taped for playback so the children could listen to themselves. This permitted them to concentrate on hearing themselves as others hear them. Billy, on hearing himself read, understood for the first time what was meant by leaving spaces with his voice.

New Words in Context

It is significant that more and more of the basic series are using the teaching technique of introducing new words in context. A word in isolation has little or no meaning even for you or me. Let's take the word "pitch" as an example. What does it mean to you? According to one dictionary it has at least nine meanings as a noun and approximately eleven meanings as a verb. With the introduction of each new word in context, the pupils have repeated opportunities to practice word-attack skills as they unlock the new words.

Telling vs. Teaching

When a pupil has difficulty with a word, what procedures and teaching techniques does the teacher use to make the printed symbols reproduce the mental images which will help the pupil recall or recognize the word the next time he sees it? How has this learning situation been reinforced in order to make it a profitable experience for him? Did she tell him the word or did she help him use the appropriate skills to work out the word for himself?

I do not know the source of this quote but I wish every reading teacher could keep it before her:

He who learns by finding out has seven fold
The skill of him who learns by being told.

This is another way of saying that telling is not teaching. Each time a pupil uses his word-attack skills to unlock a strange word, or uses the context to determine the appropriate meaning of a known word, he strengthens his independence as a reader.

All of us are familiar with the old adage that practice makes perfect and we know, also, the fallacy of the statement. Practice, however, does make permanent. We need, therefore, to be certain that it is the right kind of practice.

No basal reading series alone can constitute a balanced, well-rounded reading program. Any reading program that consists of basal reading only is indeed a poverty stricken program.

Keep in mind that the basic reader is the "how to" book. Through this book the pupils can learn how to unlock strange words, how to interpret punctuation marks, how to use context to choose the right meaning, how to draw conclusions, how to get the main idea, and how to use all the other basic reading skills.

A delightful poem by Murlee Hart of the Denver Public Schools describes reading thus

TO READ

To state the printed symbol marching on
Across the page is not to read. To hold
The lips in phonic shape while forming each cold
Consonant in stolid tones makes wan
And dreary issue, Help him see and smell
And touch and taste and feel the pulsing page
Till heart and mind and body all engage
In each related tale; till he can tell
How pictured Susan saw the raindrops trickle
From the jeweled leaves, sated her nose
With springtime's damp perfume and pushed her toes
Into exquisite ooze with squishy tickle.

When he becomes a part of
every deed
The printed page narrates, this
is to read.

2. The Effective Use of Supplementary Materials in the Reading Program

WALTER B. BARBE
Highlights for Children

THE PAST DECADE has been marked by a vast increase in the quality and variety of supplementary materials available for use in the reading program. Federal support for the purchase of supplementary materials has made materials heretofore unknown available in many school systems. The effective use of these materials now becomes the problem of prime importance.

Having supplementary materials available does not guarantee more effective reading instruction. Both the organization of the reading program and the method used in teaching reading are directly affected by the materials available. Clear statement and understanding of the goals of reading instruction, a knowledge of the need for a variety of specific teaching approaches, and the most effective use of supplementary materials are the concerns which face us today.

Restatement of Goals

The availability of such a variety of reading materials requires that we both reexamine and restate the goals of reading instruction. The limited goal of merely acquiring the skills of reading was never acceptable, and is even less so today with both the rapid increase in knowledge and the obsolecence of much that was previously thought to be factual.

The acquisition of the skill of reading is a necessary step, but it is only one step toward the final goal of reading independently, either for information or pleasure. It is no longer sufficient that a child learn how to read; he must also be instilled with the desire to continue to read throughout his life. The "skills approach" to reading must be considered only a small part of the total reading program, with the "interest approach" being the broader, more comprehensive approach for which we must strive.

Use of the Term "Supplementary"

It is likely that the use of terms such as "supplementary," "basic," and "basal" will diminish in the years ahead. In the days when the number of books was extremely limited, the use of a single text on a particular subject, or one book in the hands of a particular child, probably necessitated the selection of a book which best met the needs of the children of a particular locality. Such a book was referred to as the "basic" or "basal" text. As additional materials became available, often a second book was added which was frequently referred to as "supplementary" material. If the book closely followed the pattern of the original book, it was sometimes referred to as a "co-basal" text. Almost tragically, there was a tendency to extend the reading program by additional "basal readers" sometimes to the point of excluding all other reading materials. If the goal of reading instruction is recognized as the development of permanent interest in reading in a wide variety of materials, the question can justifiably be raised as to why it should be necessary for a child to go into a second basal reader, instead of moving on into other reading material, preferably of his own choice.

Confusion exists over the use of the expression "supplementary readers" and the term "supplementary materials." It is possible that some individuals need additional work in supplementary readers. But for the most part those children who are not successful in the basal reader program would better move to the use of supplementary materials than to another reader different only in minor ways from the one in which they failed. And for those children who were successful in acquiring the skills through the use of a basal reader, one must also question the need for the use of an additional basal reader. The importance of extending the child's reading experiences beyond the basal reader is so great that teachers must be ready to move as rapidly as possible in this direction, rather than be reluctant to leave the security of the rigid pattern prescribed in the basal series.

Materials Referred to as Supplementary

Whether or not materials may be defined as "supplementary" may be determined by the manner in which they are used. Any material may be considered supplementary if it supports learning in a particular area. By the same token, if any particular material is used primarily as the source of information for a particular subject, or even unit, it then becomes "basic" and not supplementary material. In the teaching of virtually every content field, there can be little justification today for the use of "basic" material, particularly to the point where it excludes the use of a wide variety of supplementary materials. In the teaching of reading, there are many reasons to believe that there is less need for a basal text today than ever before. In some situations more so than others and for some teachers more so than others, the basal text approach to teaching reading may be necessary; but the extensive use of supplementary materials in such a program is absolutely necessary. Basal readers may be used as supplementary materials, not supplementing another basal series but instead supplementing a wide variety of other reading materials.

Library books (referred to as trade books) should make up the great majority of the supplementary materials used in a reading program. These books should be on a wide variety of reading levels, in various interest areas, of varying lengths (from short stories to full length books), both hardbound and paperbound, and with both "modern" and "classical" titles. They should include factual materials as well as fictional. Factual materials should represent varying points of view, and books on the same topic should be of varying reading levels. Multiple copies of certain titles which are particularly suitable for children of a specific age or interest level should be available.

The adult population in the United States is a magazine and newspaper reading population. The effective reading of periodicals should begin in the early elementary school, and such materials should be considered a part of the reading program. The advantage of magazines and newspapers is that they serve to update textbooks. Newspapers will, of course, be expendable; but children's magazines should not be. Cut-outs, coloring, and write-ins serve to limit the use of a magazine as a supplementary material in the reading program for its use is limited to one child. One of the greatest values of a children's magazine as supplementary material in the reading program is that it can contain material at different reading levels. Children of limited reading ability may enjoy the same magazine that children of higher reading level enjoy.

The experience story, both individually written and group written, is of such importance that it deserves special attention as a valuable supplementary material. Preserving experience stories and rereading them later has been found to be effective at all levels. The preparation of the experience story is described by Lee and Allen in *Learning to Read Through Experience* (Appleton-Century-Crofts).

The use of such materials as film, filmstrips, large charts, and the blackboard serves a specific purpose which is bound to be of great value at the beginning reading program. Children frequently have difficulty reading smaller print and working on material close at hand. When the material is in larger print and further away from them, they have been found to learn more readily. This is a common factor which seems to be present in those programs which report gains for a specific approach such as the "filmstrip."

Mechanical devices, which frequently cost large sums of money, have been found to have value in motivating children, but are of less value as supplementary materials in the reading programs if they are purchased in place of an adequate supply of interesting library reading material. The Language Master (Bell and Howell), which utilizes an audio-visual approach, appears to have noteworthy value beginning at first grade level. The variety of materials which can be prepared on the cards for visual presentation and auditory replay is unlimited. This is only one of many new mechanical devices which deserve examination, but should be purchased only in addition to a sound and effective reading program which includes a wide variety of reading materials.

Games, word cards, records, flannel boards, and magnetic letters are all aids to teaching reading. Carefully selected and used at times when they are needed to support rather than replace the reading instructional program, they all have great value.

Worthy of special attention are the increasing numbers of collections of books designed for use at particular grade levels. Intended as supplementary materials in the classroom, these materials provide books and stories not previously available. Since they enhance the ultimate goal of reading, that is, developing both skills and interests in reading beyond merely learning how to read, they are worthy of special attention. The Owl Series (Holt, Rinehart and Winston) presents a set of forty books at kindergarten through second grade levels, forty books at second through fourth grade levels, and twenty books at fourth through sixth grade levels. In each of the three sets, there is an equal number of books in social studies, sciences, arithmetic, and literature. A similar series is *Invitations to Personal Reading* (Scott, Foresman & Co.). In this group there are three separate sets of 25 different books for each of the primary grades. Intended for the classroom library, both of these sets include teacher-aids. Because the books are purchased in sets, they cost considerably less per book than separately purchased books.

Use of Supplementary Materials

The use of supplementary materials is more important today than ever before. The role of the basic text is greatly diminished so that the effective use of supplementary materials will determine the effectiveness of the instructional program. Only when a wide variety of supplementary materials is used can the child learn to make the transitional step from learning how to read to actually reading. Clearly, how supplementary materials are used is more important than what materials are used.

The attitude of the teacher toward supplementary materials influences the effectiveness of the material. If supplementary library books are treated merely as a means by which children are to be kept busy when they have finished their work in subject areas, it is likely that they will have little effect on many of the children. But if the reading and use of supplementary materials is made an exciting and important part of the school day, the child's skills in reading and interest in the process will be greatly enhanced.

Used most effectively the basal text, and even the workbook, can become supplementary material. The most effective teacher has used the lesson in the basal reader as one to be taught to those children who need work in a particular skill area, and she is not hesitant to tear the workbook apart and use only those pages with those children who need practice on a particular skill. This is a difficult step to take and one which can only be done gradually.

Supplementary materials provide the best means for correlating reading instruction with the total language arts program. Storytelling is an important part of the instructional program, both in listening to stories and in being able to tell them. But before children are able to tell stories, they must both hear stories and read stories themselves. Being able to write creatively comes from having read and listened to stories, and is not a separate process to be relegated to a certain period of a day only after other subjects have been disposed of. The wide use of supplementary materials will stimulate the child's desire to write and to tell stories, just as writing and telling stories will stimulate the child to want to read more stories. The language experience approach to teaching all of the language arts fits well into the increased availability of supplementary materials and provides the means whereby more effective use of supplementary materials may be attained.

It is especially important that supplementary materials be readily available to the children. For this reason, it is imperative that materials be located in the classroom and not in a storeroom or in a library in another part of the school. The central library serves a particular purpose, and this purpose is different from that of the classroom library. Extensive use of a classroom library will enhance the role of the central library. The main problem is to know which material should be in the classroom library and which should be in the central library. But because the availability of material is so necessary for its most effective use, when in doubt, materials should be placed in a spot where they are most readily available to the largest number of students. Some things, such as encyclopedias and dictionaries, should be in each classroom, as should a basic collection of books which children may wish to use in the classroom when they finish with other material. Also, there is a need for multiple copies of the same titles which students may wish to use together. In addition to this, numbers of books should be sent from the central library to the classroom. These are the materials used as part of the instructional reading program. Individual titles, to be read by children for information or pleasure, generally will be checked out of the central library.

Although a widespread use of supplementary materials is an integral part of the reading instructional program, this does not eliminate the need for free reading and library periods. There must still be that time when the child is allowed to go to the library and collect anything he wants, for any one of a variety of reasons which might not be specifically identified even by the child himself. Too much assigning of books to be read for reports deprives the child of the pleasure of reading for no other reason than because he wants to.

Summary

The effective use of supplementary materials in a reading program will depend to a large degree upon the teacher. Of course, the materials must be available, but the teacher must recognize that it is from the use of supplementary materials that the children will most likely benefit the most. Rigid adherence to the basal text will minimize effective learning and deprive the children of the wide variety of knowledge and skills which are needed by children at the very earliest ages. To the extent that we select supplementary material wisely, provide for its most efficient use, and encourage children to become involved in the broad concept of learning, we will be successful as effective teachers of reading.

B. UPPER ELEMENTARY LEVEL

1. Multi-Media Approaches to Reading Instruction

DAVID ENGLER
Educational Systems Development

MY THESIS is that in the teaching of reading, as in the teaching of almost any subject, books are not enough. This may seem anomalous to some people because books are not only the traditional instruments of reading instruction, but they are also a part of one of the major objectives of teaching reading; we want children to be able and to desire to read books. As a representative of a major book publisher, I am not about to denigrate the book as a teaching tool or as a medium of information and communication. But in education today, more and more people are coming to recognize the contribution of other media to the teaching-learning process. This is true in reading as well as in other curriculum areas, but it is also *less* true of reading than of any other major curriculum area.

This is not to say that important changes have not taken place in the teaching of reading. For example, today there is widespread recognition that no single method of teaching reading is best for all children. Combinations of look-say, phonics, linguistics, and other methods are probably more common and will become increasingly more common than any monolithic system of reading instruction. This, I think, represents a big step forward, one that is in harmony with a marked trend across the grades and across the country toward greater emphasis on individual instruction and independent study. But this new focus on the individual learner requires, in my opinion, more emphasis on how the individual learns than has been true in the past. And such new emphasis must inevitably lead to the use of multi-media instructional materials.

People have been talking about individualized reading instruction for a good many years. In the past, this has usually meant offering children reading materials which were most suited to each individual's level of ability and achievement. Today, however, in addition to these factors, there is a growing recognition that there are different kinds of learners and different clusters of modes of learning. Let me define what I mean by modes of learning.

There is the graphic mode, which involves the use of abstract symbols, such as the letters of the alphabet. This has traditionally been the dominant mode of instruction. There is the visual mode, which involves the use of representative images; there is the aural mode, which involves the use of sound; and there is the tactual mode, which involves the use of concrete, manipulative materials.

The plain facts of life are, that in our time, in our society, the dominant modes of communication are the visual and the aural. Examine the day of any school-age youngster and you will probably find that his ears are being assaulted by parents telling him to wash his neck, finish his cereal, and take the dog out for a walk, while his eyes and ears are being numbed by *Captain Kangaroo, Hullabaloo,* or *Batman.* He doesn't get much information from books, newspapers, or magazines. Surely this powerful conditioning is a factor to be reckoned with in planning instructional programs.

It has become very fashionable to say that we know relatively little about how learning takes place and that what little we do know has rarely, if ever, been translated into meaningful practices in the classroom. And, in one sense, it's all true; learning theory has had limited development on a scientific basis and even less application to the everyday problems of the classroom. On the other hand, we have surely muddled our way towards some understanding, however primitive, of how youngsters learn. There is a growing recognition of the fact that each individual learns differently and that our instructional programs must be designed to take this fact into consideration insofar as it is possible and practical. Let me be even more fashionable and quote Jerome Bruner. In his most recent book, *Toward A Theory of Instruction,* he says:

> The fact of individual differences argues for pluralism and for an enlightened opportunism in the materials and methods of instruction. Earlier we asserted . . . that no single ideal sequence exists for any group of children. The conclusion to be drawn from that assertion is not that it is impossible to put together a curriculum that would satisfy a group of children or a cross-section of children. Rather, it is that if a curriculum is to be effective in the classroom, it must contain different ways of presenting sequences, different opportunities for some children to skip parts while others work their way through, different ways of putting things. A curriculum, in short, must contain many tracks leading to the same general goal.

There are, after all, some things we do know—or at least we should know—despite any lack of experimental evidence that they are true.

We know, for example, that every individual is unique. Every individual is unique in the way he looks, in the way he speaks, in the thumbprint that he leaves. Children give evidence of some of these differences from the beginning moments of life. Every individual nervous system, every individual brain is unique. We can make distinctions among individuals in regard to the way they sing, play the violin, or paint.

Why, then, do we so often fail to make these distinctions in regard to the way children learn? Why do we assume that the thirty or so individuals who make up a class all learn in the same way? Or, if we do make some distinctions, why do we limit these to factors of *intelligence*—however it may be defined—and *achievement,* which is only a rough measure of what a child has learned?

Why don't we make distinctions among children in regard to the way they learn? Partly it is because this is a very complex undertaking, and we lack simple and effective instruments for doing so. And partly it is because we don't have teaching tools sufficiently refined to effectively exploit such distinctions.

But these excuses are not adequate to justify continuing to teach at a lockstep or semi-lockstep pace and by means of a single, dominant mode. There are enough media and materials available to permit virtually *every* teacher to use a multi-media approach to learning in any major curriculum area—including reading. To be sure, this implies a rather primitive application of these media; it implies a shotgun approach that will leave to teachers and students the task of sorting out the best combination of media for any individual. And there is no doubt that there always have been and always will be children who need nothing but the printed page. But there is also no doubt that this is not true of all children, perhaps not even true of most children.

We need research in this area. We need diagnostic instruments which will tell us what kind of learner an individual student is. But even more, we need experience—massive experience. We need thousands of teachers working with tens of thousands of students using a wide variety of materials and combinations of materials. Then we will discover ways of discerning differences among learners and of prescribing different modes of instruction to fit those differences.

We can start now by using the tape recorder and the phonograph to reach the aural learner with sounds of experience, sounds of imagination, and, perhaps most important of all, sounds of language.

We can start by using the motion picture to reach the visual learner with pictures of things he would never see if he traveled the seven seas for a thousand years—pictures of Rumplestiltskin and Rapunzel; pictures of pupae and paramecia looming larger than Pomeranians and Pekinese; pictures of atoms and molecules, orbits and satellites, whirlwinds and whirligigs; even pictures of Dick and Jane. The motion picture is one of the great untapped resources of instruction.

We can start by using the simple and unpretentious filmstrip which can present separately or in varying combinations the audio, the visual, and the graphic modes to the individual, to the small group, or to the large group. Here is possibly the most flexible teaching tool we know.

We can start by using overhead projectors, flannel boards, 2 x 2 slides, puppets, games, and perhaps a dozen other things I've neglected to mention. The important thing is that we start using as many media as possible in an attempt to reach through as many individual clusters of learning modes as we can.

The technology is here. The funds are available. The recognition of the need for a multi-media approach is growing. The knowledge of how best to develop such materials is increasing. It remains for larger numbers of teachers to use the multi-media approach, to discover new and more effective avenues of reaching the individual learner, so that finally we can profitably use that most remarkable product of modern technology — the printed word.

2. Magic of Presenting Materials through Television

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READING can be one of life's rainbows, and children can find the "pot of gold" if they are led to read creatively. Creative reading can result when a reader allows himself to be communicated with.

A person cannot "tune out" and still receive the full impact of an idea. He must surrender to the idea and not give half-attention, and he must engage in intense concentration. There is an old saying which sums up this kind of attention. It says, "This one thing I do with all my heart, my mind and my soul."

When a reader engages in this type of thinking, it is easy for him to visualize and "see with the mind's eye" what the author is relating. He is not just calling words; he is living the ideas and experiencing the sensations and imagery the author had in mind. He is seeing, feeling, smelling, and tasting the throbbing page of print.

In addition to this experiencing, he must stay in control of his thinking. This means that he must accept some ideas, reject other ideas, and integrate new thoughts with his already existing body of knowledge.

Creative reading can be born of this kind of thought. From this thinking ideas are amplified, and details are added up to conclusions. More ideas emerge than are on the printed page. This type of reading translates reading into an art.

The purpose of this discussion of creative and imaginative reading is to depict reading as a thrilling, rewarding, and satisfying experience. If this goal is to be achieved, the question of how to guide children to this experience must be answered.

One of the answers to help bring about this kind of reading is the medium of television. Have you ever seen a child sitting before a television screen in rapt attention and with his eyes lighted with satisfaction and enjoyment? He is being communicated with. He has surrendered to the ideas. There is little doubt that he is experiencing and living the thoughts being portrayed. Television captures a child's attention like magic. Let us use this magic medium, then, and channel it into helping us achieve our goals for reading.

One program series being telecast in Houston, Texas, has as one of its purposes the creating of a lively enjoyment of reading. It is seeking, too, to foster an appreciation of all types of literature. Appropriately, it is called "The Magic Book Shelf." It is beamed by the Gulf Region Educational Television Affiliates to 23 counties from KUHT at the University of Houston.

In each program of the series an elementary librarian tells the story of a favorite book of the pupils in his school. Then he suggests other related books for the viewers to enjoy reading.

One of the programs tells the story of "Pecos Bill and Lightning" by Leigh Peck and "The Trail Driving Rooster" by Fred Gipson. Both stories have a background of Texas during the early pioneer days. Pecos Bill's amazing adventures are related in the book about him. And the other story has a Mexican rooster named Dick as its hero. In the book, Dick participates in a brawl and saves the day for the Texans.

This writer watched spellbound viewers receiving this program in one of the Houston schools. Magic was there, too. It is believed that this magic will surely lead some of the viewers to lively creative reading of some of the suggested books.

C. SECONDARY LEVEL

1. Critical Problems in Improving Readability of Materials

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THE PROBABILITY that a missive hereinafter referred to as "said missive" will induce in the reader the firing of appropriate cell assemblies that facilitate comprehension of said missive is higher (at the X level) if said missive is superbly constructed than if said missive is inappropriately constructed . . . *ad infinitum, ad nauseum*. . . .

Would you believe: A well-written paragraph is easier to understand than a poorly-written paragraph? Would you believe: Write "good" and be understood?

How do you write "good" to be understood? You write to attract your reader and to put your ideas across; you write interestingly and clearly. And if you fail to write clearly, you run the risk of being ignored or misunderstood. And pity the poor high school students who must read such writing.

Struggling with Reading Materials

Many pupils have to struggle with impossible reading tasks. Smith and Heddens *(8)* found that experimental mathematics materials designed for use in the elementary schools were too hard for the assigned grade levels.

Belden and Lee *(1)* found that of five chemistry textbooks selected for use with high school sophomores, none could be read by half of these students. Research points out that other high school texts are difficult.

To convert these cold facts to warm feeling I checked the readability of a newly-published world history book designed for use in the high school. It was a beautiful, seemingly well-written book. Readability score? College graduate level!

At the college level the problem is even worse. Major and Collette *(4)* found that the ten most widely-used general biology books were much too difficult. They were written one or two grade levels higher than the reading comprehension level of superior or average freshmen. Anyone who has taught general psychology knows that several of the widely-used texts are notoriously difficult.

Playing "teaching at Oxford." Let us assume we can get authors to write high school texts that the average reader can understand. How will the students make the transition to college level material as such material is presently written? Do you know that freshmen and sophomores in college are required to read such books as Tawny's *Religion and the Rise of Capitalism?* Now, I love this book dearly, and I can picture various professors being very excited about it, but not many freshmen. They find it very rough sledding. Exhibit A, page 107: "Profuse in expressions of sympathy, its strategy was to let the cannon balls of Christian Socialism spend themselves on the yielding down of official procrastination, and its first reply was normally *qu'on y pense un peu.*" Tawney held forth at the University of London and at Oxford.

The average IQ of freshmen in British universities is 128, in American colleges, 110-115. Professors in the average American college would do well to realize that they are not teaching in Oxford or Michigan or Reed. They should not play "teaching at Oxford" by loading down average students with Tawney and Hegel. The very brilliant freshman can read these men; and students in advanced courses in economics, history, and philosophy will read them—but at the right time.

Meanwhile, more appropriate materials should be selected for the average freshmen in the average American college. I do not favor "easy" colleges. But remember: if you are going to stretch minds, stretch them; don't snap them!

Make Your Writing More Readable

Perhaps you will be writing educational materials for young people. If so, you may find useful the following guidelines for making ideas readable.

Write from a well-organized plan. First of all, know what you are trying to accomplish. What ideas are you trying to get across to your reader? What learning outcomes do you expect your writing will produce? Organize the related ideas into a meaningful framework such as an outline. Then you are ready to write.

Pay attention to your reader; communicate ideas. Your reader is all important. You want him to read what you have to say and profit from it. To do this you grab him with a clever opening and unfold one interesting fact and insight after another. In physics books? Especially in physics books! And remember, you are not trying to hide your ideas from him; you want to communicate with him. So get on his wave length and stay there.

Write in an easy-to-read, dynamic style. You will be read when you pay attention to the kinds of sentences you write. Your writings should be characterized by: (1) clear statement, (2) graceful statement, (3) short sentences, generally, (4) few long words, (5) a not too abstract style (5:159), (6) nouns and verbs.

Clear statement is achieved in several ways.

1. Cut out needless words. Strunk *(10: 17)* says, "vigorous writing is concise. A sentence should contain no unnecessary words, a paragraph no unnecessary sentences . . ." Note the example provided by Gunning: *(2:95)*

   Original version

   "We solicit any recommendations that you wish to make and you may be assured that any such recommendations will be given our careful consideration."

   Trimmed-down version

   "Please give us your suggestions. We shall consider them carefully."

   You see what to do. Blue pencil your writing. Cut out words that are not working for you.

2. Positive statement aids clarity. Make definite assertions. Use colorful, dynamic language. Listen to the historian John Clark Ridpath in *The History of the World:*

   Two Indians followed the trail of the

> enemy, and discovered their hiding-place. The French were on the alert and flew to arms. "Fire!" was the command of Washington, and the first volley of a great war went flying through the forest.

3. Always strive for clarity. Clarity may not always be the principal mark of a good style; "but since writing is communication, clarity can only be a virtue" *(10:65)*.
4. Amplify concepts that are far-removed from the reader's experience. Amplifying concepts aids comprehension *(7:445)*. Too often writers lack the space in their books to expand upon ideas. Because of competitive concept stuffing, they must treat a given number of topics, no matter how incompletely.

Graceful statement makes writing easy to read. Munson points to the importance of adopting the appropriate tone in your writing:

> For each piece of writing there is implied a particular situation. The situation consists of a particular writer, a particular subject, a particular audience, and a particular occasion. The interplay of these should determine tone (*5:*188).

Note, also, the importance of tone in government writings. Rewriting some government bulletins and addresses might result in using words which fail as honorifics—"a form of respectful address used to convey status." For example, in rewriting a presidential report, the word "tell" was substituted for "apprise." However, a government official said this substitution would not increase the effective communication; it would "arouse a somewhat hostile reaction through its bluntness" *(9:*143).

Short sentences usually increase readability. Research tells us the short sentence is effective. Compare the structure and sentence length of these two versions of Ephesians 3:1,2:

> *Revised Standard Version*
>
> "For this cause I Paul, the prisoner for Jesus Christ on behalf of you Gentiles—assuming that you have heard of the stewardship of God's grace that was given to me for you . . ."
>
> *Project New Testament*
>
> "For this reason I, Paul, am a prisoner of Christ Jesus for the sake of you non-Jews. For I am sure that you have heard how God gave me His free mercy and love to share with you" *(3).*

Use few long words. Strunk warns, *"Avoid fancy words."* "Do not be tempted by a twenty-dollar word when there is a ten-center handy, ready and able" *(10:*63). If you use an easy word list as a guide to writing, be warned that a word rated "easy" in a word list may be "hard" in certain contexts. Dale's *Children's Knowledge of Words* rates the difficulty of words according to meaning in various contexts.

The Gunning readability formula "counts" hard and easy polysyllable words the same. For example, in checking the readability of two versions of Ephesians, I found that the Revised Standard Version uses the word "comprehend," while the Project New Testament translation uses "understand." Dale's book shows "understand" to be much easier than "comprehend." However, the Gunning formula does not operate to credit "understand" as being easier.

You will not be able to avoid using some difficult words. After all, students must learn new vocabulary terms and concepts. You may introduce a word the average reader does not know if you explain it in some way or provide a meaningful context:

> Peter the Great devoted himself with assiduity (diligence) to the study of the sciences.
>
> He was careful about his *diction* or choice of words.

Be specific, definite, and concrete

With concrete and specific words in your verbal palette you can paint pictures that are vivid, precise, and colorful.

> *General*
>
> "The patient was in a condition of torpor."
>
> "The Indians wreaked havoc on the settlement."
>
> *Specific and Concrete*
>
> "The patient could hardly open his eyes. He scarcely knew his own name and was not a bit sure of where he was."
>
> "The Indians attacked the village, burned half the houses, and killed a third of the settlers."

Ground your generalizations in specific facts

CE134

You will need to make some generalizations when you write. One method is to develop your generalization on the basis of specific facts. Go from the specific facts to a general statement about those facts:

> The Indians attacked the village, burned half the houses, killed a third of the settlers, and terrorized the children. They wreaked havoc on the settlement.

Many scientific generalizations are developed in this inductive manner.

Many paragraphs are organized according to a deductive pattern. The topic sentence contains a generalization or the main idea of the paragraph. The rest of the paragraph provides concrete illustrations and details which support this idea. Following is a compact illustration in sentence form:

> The 1940's saw several important inventions developed in the United States: the atomic reactor, 1942; the automatic digital computer, 1944; and the transistor, 1948.

Emphasize nouns and verbs. Adjectives and adverbs tend to weaken writing; use them sparingly. Nouns and verbs "give to good writing its toughness and color" (*10:*58).

William Hale studied Woodrow Wilson's style; it was weak. Wilson did not use strong verbs. Wilson's failure to influence the American people is interesting in the light of Hale's finding that Wilson's style lacked punch (*2:*101).

Remember: strong verbs pack the power to make you a writer and your target a reader.

Use special devices. Topic headings, summaries, and enumeration appear to increase readability. However, students profit more from these devices when taught how to use them (*6:*16). Therefore, when you write for the high school student, insist on using these devices, and include a note to the teacher and the student on how to use them to best advantage. *Buena suerta,* er-uh, Good Luck!

Summary

Many of your students have to struggle with impossible reading tasks. Your students really begin to learn and to enjoy learning when (1) readable books are written for them, (2) their teachers select these readable books for classroom use.

Perhaps you are writing educational materials. You will produce readable books and articles when you follow the guidelines for effective writing. These guidelines suggest you write from a well-organized plan, pay attention to your reader, communicate ideas, write in an easy-to-read, dynamic style, and use special devices such as topic headings and summaries.

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2. The Development of New Media to Teach Creative and Critical Thinking

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TODAY the task which faces me is a complex one which involves condensing a dozen years of research and almost that many separate studies into a brief overview.* I feel my undertaking is not unlike that faced by a friend of mine, a gifted nine-year old, who had decided to report on World War II to his fifth grade classmates. I gasped, "But how?" He replied:

> For the boys I must tell about the blood and thunder, the espionage and the sabotage, and for the girls—they won't know there had been a World War II—I'll have to give them the facts of the case. And my task is to give *rhythm and continuity to it all.*

I plan to discuss critical and creative thinking—what they mean to me and how new media can be used to foster these patterns of thought.

There are several ways of looking at creativity—as a product, as a process, or by studying creative individuals. Some of the studies of adult creativity look at products, such as the picture that is painted, music that is composed, or the scientific invention.

An approach that is much more rewarding in our work with young people is to look at creativity as a process. Eric Fromm talks about it as a search—working towards the ultimate, you might say. In science we *search* for truth; in art we *search* for beauty, and in counseling or in human relationships we *search* for a true understanding, for empathy, for love. We could also say that creativity is an attitude toward life, a way of seeing the world with fresh eyes. It is the vision that Blake must have had in mind when he wrote, "A heaven in a wild flower, an ocean in a grain of sand."

Although creativity is valued by almost everyone, too many assume that the creative attitude is easy to attain and hold. This is not true. Many, or even most, children have this special zest, the spirit that could be called creativity, but it does not survive the rigors of school and of growing up. These attitudes, interests, and values make creative individuals different from most of us. In fact, they often act or respond in ways that most would consider unusual or extreme. They tend to be aesthetic in their interests and intuitively aware—they have the poetic view of things. They combine feminine and masculine patterns of expression and thought. Most are quiet, introvertive and even asocial, and a surprising number have been or are rebellious. Contradictory and complex, they are difficult to label. They can have their heads in the clouds but both feet firmly on the ground.

Motivation is also at a higher level. As adults they "function to the hilt" and sustain an excitement about learning over long periods of time or throughout their lives. And their interest is in different things than is true with many people. They more often than not think in philosophical terms, searching for ultimates and reaching decisions in many ways, including closely reasoned logic and intuitive leaps.

Creative youngsters are also predisposed to deal with the profound and philosophical, to see issues complexly and in terms of alternatives. An eighth grade class chose to construct pages for a flexible textbook which would emphasize the human condition. One question which they posed was, "whither mankind?" They collected and shared with each other a variety of facts and theories from newspaper clippings, magazine articles, and books to support three alternatives:

1. Man could press a button and destroy the world.
2. Man could use the resources of this great and beautiful world carelessly and without plan, with the result that life would become barren and meager instead of rich and abundant.
3. Man could get himself in hand, think carefully and critically and take responsibility for his future. In such a case, he might evolve to heights of intellectual and spiritual development rarely seen at present.

The boys and girls had met the requirements of creative and critical thinking. They found a topic which interested them, they read widely and clustered their ideas into three propositions, and finally they discussed the issue of man's future at length. There was no final solution, but students did decide that some futures were better than others and that each one of them was responsible for what would happen in the years ahead.

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*During part of this time I was Director of Psychological Services in the Lansing Public Schools where I set up special programs for the children who were at odds with the curriculum—either finding school to easy or too hard. As a professor at Michigan State University, I have continued to spend at least half of my time in the schools doing research on school learning.

The project "Whither Mankind?" was a small one, a few weeks in duration and involving only one class. The point is that on a minor or a major scale, it is possible to foster clear, logical, and original thinking. The new media used in this class were current printed materials which students assembled and shared.

It seems clear that such an endeavor could be successful only if both creative and critical thinking is encouraged by the teacher. Mankind's future cannot be put into tidy packages, to be listed, memorized, and recited back to the teacher verbatim. Critical thinking is not learning the answers in the back of the book. It is quite a different species from rote memory. Critical thinking, and the frame of mind that goes with it, is also different from creative thinking. I would say that the two are blood relatives, but certainly no closer than "kissing cousins." My preferred definition of critical thinking is a broad one, similar to that used by David Russell in his book, *Children's Thinking*. Russell held that we use too limited a construct if we see such thought as merely critical—that is, fault-finding and little more. The purpose of critical thinking is to solve problems. I would amend this definition further to read—*important problems.*

The pattern of creative and critical thinking to which I allude encompasses what John Gardner has referred to as excellence. In his book Gardner asserts that the need is for excellence in a context of concern for all. This means that an individual must not only assume responsibility for his own life but that he must develop a conscience about, and take action for, the human cause. This attitude, which Allport calls, "extension of self," is somewhat easier for brighter students to develop and practice since they usually are not as overwhelmed by the enormity of the task of solving their own problems as are the average and slow. Many of their basic needs for recognition and acceptance are met and thus they have the psychic freedom to help others or to be concerned about the state of the world.

Some young children think critically about the human condition and express a deep concern. Several years ago I was speaking in Minneapolis. After my presentation, a member of the guidance division of the State Department of Public Instruction told me about his small son:

> I was bathing the five-year-old and the following conversation took place. The little boy looked up and said, "Germ warfare is awfully dangerous, isn't it?" I had to agree that it was. He continued, "and the cobalt bomb could destroy almost everyone." Again I agreed. Then my son began to cry, saying, "Those people in Washington must be awfully stupid."

The Development of New Media

Beginning in 1954, I worked with teachers and administrators in the Lansing Public Schools who were eager to try out new patterns of teaching. We set up experimental seminars where the plan was to encourage critical and creative thinking. Generally, our plan was to allow students to read freely and choose their own focus. In other words, aspects of the program were much like individualized reading. However, we brought to this reading a number of patterns of organization. Students were expected to order their thoughts and present ideas to the class through verbal interchange as well as through written reports. Individuals would make presentations or small groups would have conversations before the class and through these involve all students. Topics which were independently selected and researched by the most able junior high school students in this program included such crucial issues and scholarly concerns as "Peacetime Uses of Atomic Energy," "A Comparison of Religious and Scientific Theories of Evolution," and "The Origins of Abstract Art." It was clear that these students wanted to understand the world and to feel that they were part of it.

Excited by these explorations—the use of material that went beyond the textbook and free discussions in what we have come to call the "conversational dialectic" —I was bold enough to report in an honors conference at my alma mater, the

University of Michigan, that we were indeed teaching "critical and creative thinking." As I said these magic words, a dean from Harvard looked at me coldly and said, "What you are doing cannot amount to much." I shriveled inside, gulped, and stopped talking to him, muttering to myself, "You can always tell a Harvard man but you cannot tell him much!" But I was curious, so I swallowed my pride and finally I said, "What do you mean?" He replied:

> You cannot teach critical thinking if you use the conventional curriculum and textbooks as a base, and simply "enrich." Textbooks have tunnel vision and present one point of view or they are bland and have no viewpoint. And "turning the kids loose" to find their own way will not do. They do not know how to explore the limits or find the alternatives. There is nothing for you to do but make your own materials if you want to teach thinking!

This was the challenge: to make materials (media) that would help us to accomplish our objectives. How could we teach junior high age students to think and to like the process; and what should they think about? The latter must come first. We had to choose our focus. Suddenly, it occurred to me that I personally felt that the great need was for people to develop more of their potential, to become what Abraham Maslow has called self-actualized. This has been an enduring interest for me since I read his book, *Motivation and Personality*, in 1954. A self-actualized person, by definition, is original and logical in thought as well as altruistic and dedicated. Surely we could help young people to develop and use their abilities more effectively. We could use the self as a major theme and help these young adolescents in their search for an identity. Was it not possible that they could grow to understand themselves better and thus come to feel more useful and effective in the world? Yet we were aware, as we searched, that there was no education which was designed to foster such critical and creative thought. And there was none with a primary aim of helping children to find themselves, to develop a sense of purpose in life, and—in fact—to "live a life."

The older patterns of education stressed either social or academic conformity, "getting along" or "getting ahead," or both. They were not designed to teach children how to think for themselves and to free them to explore in areas beyond the curriculum, nor did they emphasize that all must become ethically responsible. In other words, there was little effort to develop excellence as John Gardner has described this quality. As educators we say that our aim is to teach children "to think and to care," an objective Edgar Dale recommended long ago. We put such aims in our educational preambles, but we have not created the atmosphere, designed the materials, or allotted time in the schedule to do this. However, we know that if we do not take action, our words are empty—even dishonest—and by our inertia we, in effect, endorse the status quo.

Such thoughts gave us impetus to build a new program and to make and try out the media and methods that we thought would be effective. The program was to be an experimental ninth grade social studies course.* We decided to construct a series of films and a new kind of textbook to help children discover themselves and better understand the world. To aid students in self-discovery, we made the films of outstanding adults who already had a large measure of self-awareness and were, in addition, working creatively and responsibly in areas that required disciplined thought. One or several of these models might help a student understand himself and how he might fashion a meaningful life pattern. The course began, however, with an overview of the environment.

To help the students discover the world, we constructed an open-ended anthology, using the best ideas and the most crucial issues in our current periodicals and library-type materials. Our hope was to present the urgent social problems and the living culture of the world today. In these selections we had another opportunity to introduce contemporary heros and to give "the measure of man" grander and more noble dimensions than most mass media does. We turned the pages on the movie queen, the football hero and James Bond and focused instead on Eleanor Roosevelt, Mahatma Gandhi, Martin Luther King, Robert Oppenheimer, Loren Eiseley, Helen Keller, and more than a hundred others of similar stature. Believing that both pattern and diversity are necessary for higher order thinking, we grouped the articles, the sketches, the reviews and the drawings into four worlds: the natural, the aesthetic, the technological, and the human.

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*Experimental and control classes met for an hour a day throughout a semester. There were approximately 120 in each of the two groups. Research was funded by NDEA, Title VII.

But building a world did not stop with the four we proffered to each student in the multilithed text. Students took over at this point. Each became an editor, censor, and contributor to the book that was to bear his individual stamp. All were invited to write comments on any page, were given a brown envelope to deposit pages or even worlds they did not like, and we placed a stack of recent magazines in each classroom from which they could choose new articles to add to their books. In this way there was both structure and freedom. Each student could construct new worlds or his own version of utopia and he could add colors and pictures, poetry and prose of his own choice or making.

After six weeks of earth-moving and world-building, it was apparent to our able ninth graders that life was pretty complicated, and the odds against making sense out of it were overwhelming, to put it mildly. Perhaps no "man was master of his time," or could be. To bring in hope, reinstate courage, and perhaps kindle a sense of destiny, the ten "style of life" films were shown at this stage—after about two months of overview of the outer world. These portrayed men and women in command of the situation—who were shaping their lives as Robert White of Harvard suggests that psychologically healthy and mature individuals can do.

Our aim in this experimental program was to help young people think more creatively and critically and to develop a sense of ethical commitment. Experimental students tested higher than control students in these areas at the end of the study. We spent five years in building and testing new media and we now feel that, although this was a small beginning, we were going in the right direction and that we should continue in our efforts.

3. The Use of Audio-Visual Aids in Independent Study

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MOST evolutionary processes result in a proliferation of the forms or usage of the evolving innovation. The use of audio-visual aids in educational techniques is no exception. Where originally AV aids were designed to meet the needs of *teachers* in presenting a body of knowledge to the learner in a lecture-demonstration fashion, we now find them employed to meet the individual needs of *students*.

The proliferation of the types of AV aids has made possible the shift in emphasis from large group instruction in which the material to be learned is presented mainly to the average learner in the group. This technique is usually accompanied by a loss of motivation to the more gifted pupil and the confusion of the slow learner, since the materials used in the presentation are rarely versatile enough to meet the needs of all the groups. The shift of emphasis to which I refer is toward individualized instruction through the use of independent study materials (ISM). These should be sufficiently versatile to provide that approach to the subject matter being taught which is best suited to each student's abilities, rate of knowledge absorption, cognitive pathways by which knowledge is interpreted, and level of interest. We are now aware that there are as many different ways to teach as there are teachers, and we are beginning to realize that there are as many ways to learn as there are pupils.

Collette and Thurber *(4)* have stated that no teaching is accomplished unless the student has learned a new way to think as a part of the process. The teaching of that new way to think, especially in the science fields, has been the major concern of most of the curriculum development studies and resulting programs the past decade such as PSSC, CBA, CHEM Study, BSCS, ESS, etc.

In order that students might be allowed to lead themselves *inductively* to the discovery of knowledge, audio-visual techniques providing experience situations have been designed for all of these programs to *precede* any lectures by the teacher or the reading of textual material. The ancient order of pedagogy—read, lecture, demonstrate, drill, test, and review has been replaced by observe, analyze, conclude, discuss, expand, and implement. The reading of those textbook materials which are not directions for the use of materials in the experience situations provided is assigned *last* rather than *first*. As a result, the student enters the reading activity with a background of cognitive association which the old techniques could not furnish.

Audio-Visual Techniques

In science, the most successful independent study technique is the *experience situation* in which the student is provided with a device which he may manipulate and observe. As a result of analyzing his observations he may discover a relationship which allows him to predict the behavior of nature when the conditions to produce such behavior are again present. I call this kind of independent study material and the accompanying activity *tactile association situations* (TAS). A TAS need not require a piece of apparatus to manipulate. A sketch or picture to be analyzed is often all that is required in a situation which must be analyzed by the student in such a way that behavior in the situation is predicted. I have recently written a junior high school science text series in collaboration with Samuel Blanc and Abraham Fischler *(1)* incorporating the use of tactile association situations to provide an activity-centered approach to the teaching of science. Eric Rogers of Princeton *(5)* has attained a high degree of skill and sophistication in his teaching techniques, many of which have been placed on film for use in the PSSC secondary school physics course, utilizing TAS of this type in his text.

In those situations where apparatus is dangerous to use, expensive, or requires special skill in manipulation, the observations may be made by students through the medium of motion pictures. The continuous film loop is a recent innovation in this technique which allows the teacher to produce his own materials with ordinary home movie equipment. Most commercial offerings provide only the film loop lasting about four minutes per cycle and which is observed passively without any student involvement other than absorbing the visual stimuli. We have discovered at Jamesville-DeWitt High School that the degree of comprehension is greatly enhanced if the pupil is required to take part in the observed activity by making measurements from the filmed situation and subsequently analyzing that data as part of the independent study program.

The culmination of the incorporation of audio-visual techniques into the techniques of teaching is the eventual reversal of the time spent in formal lecture-demonstration presentation and the rearrangement of student learning time to provide for a maximum of independent study and a learning program designed to meet the learning requirements of *each* student. This is accomplished by the teacher who divorces himself from the five periods of thirty to sixty minutes each week for material presentation and who uses modules of instruction of twenty to thirty minutes in which *student* activity takes place during most of the learning process. This may be accomplished within the present framework of the seven, eight, or nine period day by dividing the class into groups of five to fifteen students and providing them with independent study materials specifically designed for their level of achievement or providing a TAS which they may examine at *their own rate of learning*. While one group is working on ISM in AV carrels, the other group(s) may be doing *research* in the library, working on *evaluation* of learning exercises, or *transferring knowledge* gained in one experience situation to another TAS provided for this purpose.

Students grouped homogeneously by ability, reading level or degree of motivation may meet with the teacher periodically for a seminar in which student-teacher contact provides opportunity for questions to be asked, concepts to be discussed and explored from new facets to provide enrichment, and for the teacher to identify problem situations in the cognitive and achievement processes as they develop. In such a learning environment, the large group lecture quickly recedes into a film watching, direction receiving, or examination taking period used seldom more than once a week. At Jamesville-DeWitt High School, I will be teaching a course in Physics next year and I am now teaching a course in Advanced Science and Mathematics in which the large group lecture time consumes only forty-five minutes out of each four and one-half hours of student contact time.

To implement these techniques and to meet the problem posed by the varying rates of learning and degrees of motivation among the students in a given course of study, the employment of the contract unit device is practically imperative. The use of *process words* such as "observe," "do," "explore," to describe each activity of the contract unit is advantageous as a motivation stimulus. Samples of contract units will be demonstrated and copies may be received upon request from the author.

Many teachers find that the implementation of these techniques provides an opportunity for the use of tutorial techniques similar to those which the Rhodes Scholar Program employs. If the number of students involved limits individual tutorial time, a *taped tutorial* has been demonstrated to not only be feasible but to provide the same degree of achievement as the live tutorial technique while stimulating the student to verbalize on the concepts being studied beyond the degree that such verbalization is achieved in the "live" tutorial.

In the taped tutorial, Socratic questioning is provided by a teacher-prepared audio or video tape. The student then responds into a tape recorder in his study carrel to the stimulus at his own rate, in his own words and without the "pressure" which direct confrontation produces on the student. As a result the response is more relaxed, more sincere and usually more verbose than in other forms of response stimulus.

Outcomes of ISM Research

Our studies have supported the findings of Travers *et al (6)* that time compression may be enhanced by the use of TAS in conjunction with visual materials and audio tapes or teacher directed *queries* and that most learning situations are improved by utilizing more than one sense modality in the learning situation to produce a significant difference in the achievement of students over lecture-demonstration techniques at the 5 percent level. It is also interesting to note that the difference is most significant when experimenting with these newer techniques on low ability students, underachiever readers, and slow learners, rather than with the high ability students. In other words, the gifted student is able to learn in spite of the teacher.

A greater degree of success in guiding the student to recognize his own abilities has been achieved since the incorporation of these techniques into the secondary school program. At the same time, a more realistic attitude concerning the nature of the material learned and its transfer to other situations is achieved. For example, prior to the implementation of these techniques into the physical science program in the high school, the attrition rate of entering freshmen in college aspiring to become physicists was 60 percent. It is now below 10 percent, even though the level of difficulty of college programs in physics has significantly increased and the degree of specialization within the discipline has increased markedly. Upon completion of his high school program, a student now has a feeling for the machinations of scientific investigation, a greater depth of understanding concerning the job of the scientist, and a security in the mental processes involved in scientific work which students previously lacked by their own admission at the time their original aspirations changed.

Most startling of all the outcomes investigated is that of *time compression*. Material presented in forty-five minutes of class time through the lecture-demonstration techniques is now mastered to a greater degree through ISM techniques in less than half the time in the majority of situations where they were utilized. For example, a laboratory situation which previously required four hours to collect the necessary data was presented through the medium of an ISM program employing a film loop and accompanying audio tape and worksheets.

Instruction in the use of the slide rule accomplishes in three twenty minute ISM programs what used to be taught through traditional classroom techniques in four forty-five minute classes.

When pictures have been *"compressed"* for presentation in TAS along the lines described by Colin Cherry *(3)*, the contribution made by pictorial visual stimuli apparently is contrary to the findings of Bourisseau, Davis and Yamamoto *(6)*. Stick drawings such as those utilized by Rogers were found to increase verbal comprehension significantly at the 5 percent level of difference.

The retention of knowledge gained through the herein described techniques was found to be significantly greater when compared with control groups over a ten month period. An extension of this comparison beyond one academic year has yet to be made. Although the degree of retention does decrease with time, the ability to transfer that knowledge does not appear to decrease at the same rate. Some measurements indicate that the degree of transfer may increase with the passage of time.

Of all the outcomes of the utilization of these techniques, however, the most immediate is the increase in student motivation to learn, the change in attitude toward the learning situation enhancing enjoyment of the process of learning, and the readiness with which students accept a more mature attitude and demonstrate a more sincere interest in the task of acquiring knowledge. It is a pleasure to work with students who are eager to learn and who demonstrate daily their joy in participation in the program provided for them.

Problems

The average time required to prepare and produce a 20 minute ISM program incorporating video tape, film or slides, and audio tape and accompanying worksheets and guides is eight hours.

These techniques are not readily mastered by most inexperienced teachers. And finally, almost all teachers—neophyte and master teachers alike—find that at least one program must be produced before the techniques of production are learned. In other words, a lecture and demonstration about these processes and techniques is no more sufficient for teachers than it is for their students. Even we need a TAS in the form of producing a program ourselves to master the learning task.

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D. COLLEGE TEACHER EDUCATION LEVEL

1. The Value of the Overhead, Opaque, and Film Projectors in Reading Instruction

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IT'S THE MILLENNIUM! Suddenly there are monies to spend on instructional materials and equipment, amounts that defy the imagination, and there is pressure to spend in a hurry.

What should we buy? How good are the machines designed to aid in teaching reading? Can we believe the claims made by the sales representatives? We wish we could give answers based on valid research. What do we have to go on?

Nason *(24)* has pointed out that few research reports appraise thoroughly and realistically the teaching effectiveness of the overhead, opaque and film projectors. He notes that many variables make such research extremely difficult—such variables as pupil interest and ability, motivation and set, type and quality of equipment and the deftness of its use. Certainly no one recognizes this better than Spache *(28)*. His conclusions as to the exact role played by mechanical devices are guarded. He concludes that mechanical devices should be used primarily to improve visual discrimination and perception and then to aid in the improvement of reading rate. More recently Spache *(32)* has suggested that mechanical devices seem to achieve their success largely through the reduction of fixation time by the support they give a dependent personality.

These devices, themselves, do not teach. They are designed to supplement the regular instructional materials, not to replace them. Gates *(10)* points out that any device or material probably will be successful to the degree it follows fundamental principles of learning. Certainly none of the devices under consideration are self-instructional. Teachers must use them correctly. Because these materials possess no more flexibility than a book the child and material must be carefully matched.

Purposes for Using Projectors

Spache *(30)* has suggested that a little recognized purpose for projecting materials is the reduction of visual strain for visually immature children performing near-point visual tasks. Many kindergarten and first grade children are farsighted. Or they may have problems with binocular coordination at near-point, as Hill *(11)* has indicated. These visual problems may reduce a child's attention span or reduce his ability to concentrate. Children with near-point visual problems may need enlarged instructional materials read at far-point from which to learn. This hypothesis should be checked experimentally.

Rapid accurate perception of words is essential in achieving adequate rate of reading. Amble *(2)* compared the effectiveness of two approaches of perceptual span training with intermediate grade children practicing reading meaningful phrases of one to five words presented tachistoscopically. The group that practiced most achieved the higher comprehension. Amble concluded that this was an effective way to improve reading efficiency of intermediate grade children. These data support the practice of tachistoscopic training. But as Spache *(29)* has cautioned, it is possible to train a person to use a larger perceptual span on tachistoscopically presented materials than he normally uses in continuous reading. This may explain why increasing perceptual span sometimes fails to produce significant gains in rate of reading.

Value of Pictures

One of the assumed values of projectors is that pictures supplement words and phrases. What are the values of pictures? In 1937 Miller *(23)* studied the values of pictures in teaching 600 first grade children to read. His data indicated that the illustrations in basal readers may not be necessary in order for children to comprehend. There have been many changes in basal readers since 1937. Are Miller's conclusions still valid? Weintraub *(38)* in 1960 gathered data with second grade basal readers which indicated that comprehension was greater when the text only was seen. This finding held for children designated as poor readers as well as those considered average and good.

M. D. Vernon *(36)* reported two experiments on the value of pictures to add to a child's knowledge and understanding of content area materials. Vernon's major conclusion was that pictures had little effect on understanding or recall of verbal material. Denny *(9)* interprets this data to mean that skills in picture, graph, and chart interpretation and their use must be formally taught. Spache *(31)* suggests that pictures must contribute something unique if a picture-text combination is to be more effective in producing learning than text alone, or they may interfere with reading success.

Overhead Projectors

Recent technological advances have made the overhead projector a more suitable machine for teaching reading. Today it is simple to produce transparencies of books, workbooks, and teacher and student made materials. The publication by Schultz *(26)* gives complete guidance on the production of materials for and the use of the overhead projector.

There is, however, very little research on the overhead projector. Story *(33)* provides limited data which indicate increased achievement in reading when transparencies of stories were used in an initial choral reading experience. He reported no statistical analysis of the data and the general teaching procedures were unique. The major implication seemed to be that the children had a strong desire to read. That use of the overhead projector will increase reading achievement or understanding remains unproven and largely uninvestigated.

Opaque Projectors

Essentially the same can be said for opaque projectors. Love *(18)* reported a study with beginning readers where visual inadequacy was a concern. Pages of textbooks were projected with capital letters 1.5 inches high. Whole class lessons were 45-60 minutes. Mean reading grade achievement at the end of first grade was 2.4 with some regression during the summer. Love indicated that attention span was lengthened and strengthened and interest was maintained. But there were no controls or tests of significance applied to the data.

Logan *(17)* indicates that one use of the opaque projector is mounting children's materials on a long strip of paper and exhibiting them in a series to the whole class; the implication is one of motivational value. She also stresses the advantage of teaching from one projected image instead of each child having a copy. Davis *(8)* points out that little of the vast experiential background of a group of children is common to all and that projected materials can provide a common denominator during readiness for reading a story or in developing concepts necessary in reading the content areas.

Film Projectors

Film projectors fall into two sub-categories: (1) filmstrip projectors, and (2) silent and sound movie projectors.

It is difficult to say when filmstrip materials first were employed. According to Carroll and Thalberg *(4)* in 1937 Dearborn, Anderson, and Brewster initiated research leading to the production of the first instructional films in reading. The first commercially available set of reading films, Harvard Films for the Improvement of Reading, appeared in 1940. The Iowa High School Reading Films appeared in 1948. The principal objective of both is improvement of reading rate. Critics point out that the procedures do not individualize instruction (the reader must fit himself to the prescribed pattern) and that good readers should read with variable or flexible rates. And so the issue is joined.

Commenting on controlled reading, Traxler *(34)* points out that there is little research on its value, what data there is is neither clearly favorable nor unfavorable, and while the research generally indicates improvement there is no convincing evidence that the improvement could not have been made without controlled reading.

Reid *(25)* suggests that films are good for telling a story or describing a process because they provide continuity in vicarious experiences. Vocabulary growth can be achieved by good pre-reading observation, good presentation of new vocabulary, and careful follow-up use of words presented in the film. Voland *(37)* reported increased learning from the use of films during the "preparation for reading" phase of the guided reading lesson. Films were used to get the child interested in a story, to increase background for understanding the story, to introduce new words, and to motivate reading. These new words were then used in a story written by the children. Dale, Finn, and Hoban *(7)* indicated increased recitation and discussion and increased voluntary reading to be associated with the use of films. Michael *(22)* found that learning from films could be increased with viewer participation. This conclusion was supported by some of the research reported by Cass *(5)*. It appears that the key to obtaining increased reading achievement through the use of films is observer participation.

There is more research on filmstrip materials in developing increased reading achievement than for the other projection devices, although it is perhaps no more conclusive. Kelley *(15)* attempted to determine whether first grade reading instruction could be improved through filmstrips which reproduced the basal text plus some lessons in word attack skills. His findings indicated a generally significant, superior achievement in word recognition and sentence reading but no significant differences in paragraph reading. Boys in the experimental group seemed to profit more than girls in the experimental group. Teachers indicated improved interest and stimulation to discussion and encouragement for the more timid children. Vandermeir *(33)* studied the effectiveness of verbal accompaniment to filmstrips and the use of mimeographed materials alone. He concluded that immediate factual learning and recall of information were practically the same. Vandermeir also suggested that poor pictures may inhibit learning.

In contrasting the effectiveness of films and filmstrips Slattery *(27)* concluded that having fifth grade children read aloud the verbal content of social studies filmstrips gave better command of information and concepts than materials presented in motion pictures and slightly better learning than the filmstrips without participation. Hoban and Van Ormer *(12)* reported that projected still pictures were about as effective in teaching factual information as silent films. McBeath *(19)* compared the relative effectiveness of captioned filmstrips, a captioned filmstrip with narration, a sound filmstrip, and a filmograph in teaching facts and concepts. While his data indicated significant differences between the four media at the .05 level, the rank order means indicated that no one method could be considered significantly superior or inferior. While this study is inconclusive it could be a model for other studies.

No discussion of the use of projected materials in teaching reading would be complete without discussion of the New Castle Experiment described by McCracken *(20)*. This textfilm philosophy and procedure has been much discussed for a number of years. In 1960 Lichtenstein *(16)* reported data which was supportive of the New Castle approach but no controls or exacting research procedures were reported. McRobbie *(21)* compared several combinations of basal readers and supplementary materials, including textfilms, and got no conclusive data from which to recommend any of the experimental procedures. Bradley *(3)* followed children for three years and found that any differences in favor of an experimental group were gone by the end of grade three. Cruickshank and Flowers *(6)* got data that seemed to favor the experimental groups but indicated that their research did not allow for a conclusion strongly supporting the experimental approach.

It seems that we are unable to provide answers to the questions asked earlier. While we can agree with Allen *(1)* that the function of audio-visual materials is the improvement of communication, we cannot concur with Jarboe and Humphrey *(13)* who say, "It has been demonstrated time after time that audio-visual media can do as well or better than other materials in teaching children to read. There is much research data available to show what can be done with filmstrip machines, overhead projectors, opaque projectors, tachistoscopes, bulletin boards and other materials." As Karlin *(14)* has suggested, all of the answers have not yet come into the realm of truth. It seems reasonable to suspect that the monies which may be spent for reading machines, etc., might just as well be used for other purposes. It seems to this writer that many people today desire to rely very heavily on materials for the solution to problems encountered in teaching children to read. At present, and this is a plea for definitive research, we cannot strongly support projectors over other types of reading instructional materials. We must recognize that people will invest in them and be disappointed because they have expected too much. We may perform our best service if, along with our advice and expressions of personal opinion, we sound the well-known warning, *let the buyer beware,* and add, *let the buyer prepare to teach.*

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2. The Use of Tape Recordings in Teacher Education

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THE BASIC TENETS for the need for using audio-visual media which are particularly important in the field of reading may well be illustrated by the following two figures.

VALUE OF WORDS IN COMMUNICATION

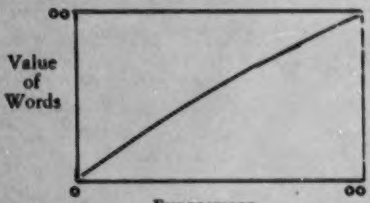

Fig. 1

Figure 1 points out that the value of words as a conveyor of ideas is nil without experience and that words become increasingly important and effective as a means of conveying ideas as experience increases.

NEED FOR MEDIA IN COMMUNICATION

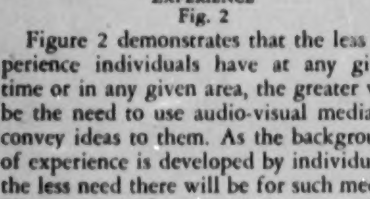

Fig. 2

Figure 2 demonstrates that the less experience individuals have at any given time or in any given area, the greater will be the need to use audio-visual media to convey ideas to them. As the background of experience is developed by individuals, the less need there will be for such media. These tenets, of course, are not new. But it is believed that these graphs, which were developed by Raymond Wyman of the Audio-Visual Services at the University of Massachusetts, may help to reinforce understanding of the need for media in the learning process.

I plan to relate to you some specific means of using tape recordings in reading diagnosis, rather than to generalize on the use of tape recordings or listing the many ways tape recordings may be used in various educational situations. A study of reference material reveals many sources for discovering effective means of using tape recordings in the classroom. But there is a dearth of research relating to the effectiveness of tape recordings in reading education.

One specific means for using a tape recorder in reading diagnosis is as an aid in training teachers and reading clinicians to make a more accurate recording of errors during the administration of an oral reading inventory. Some device or technique for training teachers in recording errors when administering an oral reading inventory is apparently needed. Eleanor Ladd's *(2)* doctoral study at Florida State University revealed the inadequacies of teachers in making accurate recordings on oral reading tests, particularly before training. As a result, George Spache *(3)* believes that our hope for training teachers in making more accurate diagnosis is to outline a simple, practical method of recording oral reading errors and to provide teachers with practice in recording and interpreting these errors. As such, it behooves personnel involved in teacher training, and particularly those involved in teaching clinical procedures, to carry out this charge.

Ladd's study reveals that teacher trainees can improve their accuracy in scoring oral reading tests through training given by means of tape recordings. This does not suggest that actual experience in diagnosing children is not also necessary, but much expense, efficiency, and time can be saved by giving initial practice to teacher trainees by means of taped diagnostic sessions. Her study indicates that the use of taped recordings of oral reading situations for training purposes would aid in overcoming the difficulty in obtaining children for demonstrations, would supply a dependable source of testing situations, would allow teacher training experiences without undo cost, and would allow individualized help to those trainees who need more practice in audio discrimination. Ladd's study also suggests that teacher training agencies need to give consideration to the practice of giving ten or fewer oral reading testing situations to their trainees. Her study reveals that the proficiency in recording errors improves considerably when the training period is extended to 30 practice sessions.

An attempt is being made at the University of Massachusetts in remedial reading courses to give training to prospective reading clinicians and reading teachers in accurate diagnosis of oral reading errors through a series of tape recordings. Since the Gray Oral Reading Test is currently being used in our clinic to assess oral reading performance, a number of tape recordings of pupils taking this test have been made. From these various tape recordings, a representative sampling of pupils taking the oral reading test has been arranged in a series on a master tape. Each master tape contains six recordings of pupils taking the oral reading test. The reading passages of Form B of the Gray Oral Reading Test have been duplicated and are used as the practice sheets. Students are given a number of these practice sheets on which to record the oral reading errors that are made by the pupils on the master tape. After each recording session, students are given a duplicated copy of the reading passages upon which are recorded the correct responses. The students then have an opportunity to check their practice sheets with the sheet containing the correct responses. When this exercise is used with a class as a whole or with a small group of students, the students have the opportunity to discuss their responses with one another and to ask for interpretations for recording errors from the instructor. This procedure could also be used by reading supervisors who desire to train teachers in giving the oral reading inventory that is administered in their school systems.

This practice exercise may be further extended into the area of test interpretation by having students score the test results as outlined in the test manual. Interpretations as to the reading level and reading problem are then made. This whole procedure enables students to make practical application of some of the concepts involved in an informal reading inventory so that they are better prepared to score and interpret any other oral reading test they may encounter.

Although the personnel at the University of Massachusetts have not yet conducted an exhaustive study of how this procedure helps teacher trainees and clinicians to reduce the number of errors made in recording oral reading responses, our preliminary studies show that students do make gains in their proficiency at recording oral reading errors, but by no means have eliminated all recording errors. We believe that further group and individual practice is needed. Students, however, do make the subjective judgment that they now feel that they can approach the administration and interpretation of an oral reading test with much more confidence.

Another procedure to enhance teacher trainees' and reading clinicians' competency in giving oral reading inventories is to have them record on tape their testing sessions. The reading clinician can then concentrate on watching the pupils' physical responses as they are taking the test. Final recording of oral reading responses can be obtained from the tape recording. Some university and college reading clinics are equipped with a testing room with concealed microphones and in this situation a disturbing atmosphere is not created for the pupils being taped.

These tapes may also be used by other clinicians as practice exercises. It would be of particular value for those clinicians participating in the staffing of a case to listen to the taped session of the pupils' oral reading performance.

Tape recordings are also an invaluable device to reading personnel involved in corrective work. Before corrective work is begun, pupils who are receiving training could be taped in some oral reading situation. They are again taped periodically during their corrective training and at the end of their instructional period. This enables the pupils to recognize how much progress they have made, and it allows the reading clinician to determine the effectiveness of the training.

Tape recordings, of course, do have some disadvantages in comparison to an actual testing or speaking situation. Whenever we listen to a tape, whether it be a recording of a testing or speaking situation, we are editing. We are missing the facial expressions, gestures, and other visual aids that help to communicate meaning. For this reason, the taping of even a quite brilliant speech may fall flat when only heard via the tape recorder. However, taped testing situations when used as practice exercises do act as a good readiness technique before oral reading inventories are actually administered. They are also valuable in checking upon the results of oral reading tests which have been completed.

In doing diagnostic work in the area of word analysis skills, the tape recorder may be used to achieve greater accuracy in diagnosis. The directions for the test, as well as the words used to determine a pupil's auditory discrimination and phonetic ability, may be placed on tape. Greater reliability of the test should result since all pupils taking the test are subjected to the same set of directions, the same time limit, and the same vocal presentation.

The California Phonetic Survey, published by the California Test Bureau, has a tape available for the complete administration of their phonics test. Why couldn't this procedure be used with many other word analysis tests? For example, in our clinic we have taped the directions and the testing procedure for the Phonetic Analysis Skills Test found in the manuals of the Houghton-Mifflin Basic Readers at the intermediate grade level. This phonetic test is designed to be administered on a group basis, but we use it on an individual basis in our reading clinic. If a clinician decides to use the McKee Phonetic Analysis Skills Test, he merely administers this test by means of a tape recorder. We feel this technique gives much more consistent results.

It would probably be more conducive to a classroom diagnostic situation if a tape recorder were used to administer a group phonetic test. If a tape of a phonetic test were available, teachers would be more likely to administer the test, consistency in administration of the test would result, and more reliable diagnosis of the group could be made. It would particularly lend itself to more accurate comparison of groups within a city school system because the matter of differences in administration would not have to be taken into account.

Morton Botel *(3)* states that the two most important factors needed to be determined in diagnosis are (1) the proper reading level of pupils; and (2) the proficiency of fundamental word attack skills of pupils. I heartily agree with this and believe that the judicious use of tape recordings will more accurately enable us to determine the answer to these factors concerning pupils' reading status.

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ORGANIZING CLASSROOM TEACHERS

A. PRIMARY LEVEL

1. Classroom Organization for Learners and Teachers

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LET US CONSIDER class organization that provides optimal possibilities for children's learning. In view of the still peppery conflicts that surround this topic, it would seem that I should contrast results of the research that has gone on for the last twenty to thirty years on various plans of organization. The results of studies of individualized versus homogeneous basal reader groups fall generally into three patterns: (1) no statistically significant difference in comprehension and word study skills; (2) superiority for some or most of the basal reader groups, and (3) superiority for some or most of the individualized classes.

Obviously something is wrong in research that shows such contradictions. More rigorous controls, more sensitive measuring instruments and evaluative procedures, both formal and informal, more carefully matched teachers or much larger numbers of them are some of the improvements that need to be made. The many variables that need to be controlled are admirably stated by Sam Duker in *Elementary English* for March 1966 *(2)*.

Until such studies are completed and their results are coordinated and interpreted, we must answer questions of organization on the basis of principle. It is my aim to take this approach to organization—namely, to consider purposes of instruction and what we know of the dynamics of group and individual learning as a means of deciding upon patterns of organization.

Goals of Instruction are Keys to Organization

No organization is good—or bad either—in and of itself. Organization or programing must serve particular goals. One thing automated teaching devices make clear is that a program is only as good as its exercises are appropriate to particular aims. I propose that goals must always be concerned with human changes. In our present consideration, they are concerned with children and their roles in learning to read.

For me the first and more important goal of instruction is to infect children with love of reading. If we fail in this, our whole effort is pointless. All other goals seem to grow out of or to strengthen this commitment. To achieve this end, we must help children apply their skills of comprehending the oral language to the comprehension of what they read. We must help children encompass some efficient skills of deciphering the printed code and to take pride in their growing independence. Further, we must foster in our pupils a gradual refinement of literary taste. We must foster their use of reading to solve life problems, utilitarian problems, aesthetic problems, ethical problems. We must work toward these goals in ways that enhance children's images of themselves and that quicken their sense of being related significantly to the main streams of life.

Some Goals Demand Interaction

Let us look at some of the organizational practices used by superior primary teachers—practices that free them and their pupils for individual action and interaction. First, these teachers plan room arrangements so that children can carry out directed activities and self-initiated ones with maximum independence. They arrange materials on low shelves and tables. Individuals and committees are selected, or elected, to help keep paper, paint, phonograph, records, wood, clay, and other materials in order. These teachers and their pupils make plans for the day and for the week. And this is not just lip-service; they really make the program fit their purposes. They set up centers for work—for mathematical materials to be tried out, for science interests to be explored, for dramatic free play and planned dramatics. And of course there must be a classroom library and plans for running it, even in Nursery and Kindergarten.

In a first grade class this Spring, I observed the first meeting following a visit to a chick hatchery. The children's enthusiasm could be seen as well as heard! The teacher recorded some of the comments on the chalkboard, read them to the class, and asked for some sentences to connect the comments into a running report of the way they really saw things. Listening to the whole report to see if it told the main things about the journey occupied everyone. All followed along silently, at times pausing to match words heard with their printed symbols. Many pupils took turns reading sentences aloud.

Immediately after this reading, more first-hand experience became the focus. The teacher showed the class a small incubator that held three eggs. All the children were agog over the notion of hatching baby chicks right there in their own room. Plans for getting it started and questions about how long it would take came rapidly from children who lived near chicken farms but knew little about them. The questions and many guesses about their answers came more quickly than the teacher could write them down, but some were recorded for future checking.

In the time that followed, some children worked individually painting pictures,—not all of them about chickens, either. Some worked on puzzles, some looked at and read picture books. One group worked with the teacher on word analysis exercises with emphasis upon clear speaking, much needed by those six children and to some extent by many others. Three individuals read aloud to the teacher, practicing a story they were to read to the class the next day.

In the sample just sketched, there was an amalgamation of content, curiosity, strengths, and weaknesses guiding people's use of time and place. This is, in fact, what organization means. The goals, quite obviously, were to proceed from children's interests and experience to oral and written language, to further confidence and power by affirming individuals' contributions, and to set next steps by fostering curiosity. A whole class enterprise was the matrix of both small group and individual work and was in turn strengthened by the achievement of individual and class goals. Interaction was of the essence.

Some Goals Necessitate Individual Teaching

Let us now look at a quite different kind of instruction. Suppose an obvious need is to help some fourth graders with the subtle skill of phrasing silent reading so that it makes sense. Children with such needs tend to read word-by-word, to pronounce words accurately but not to render meaning to such a passage as the following:

> Sam knew that the big black dog was running after him, but he was too scared to look. He knew that in a minute the dog would jump on him and knock him down. He had been bitten by a dog before.

Read in a monotone, this tension-filled passage conveys nothing. Indeed, without speech melody "heard silently" few American English sentences convey anything. Read in meaningful phrases, with contours of pitch and timing, a frightening situation takes shape.

When children for one reason or another have learned not to hear what they see in print, it seems wise to begin with the pupil's intent to communicate meaning from his own words. Have him write—or better still,—have him dictate a message, a story, or a report with which he hopes to catch class response and have him read his own content to a receptive audience. He will, of course, have to read it first to his teacher. Perhaps he will practice it several times. After several dictation and writing experiences, have him choose an article or story which interests him mightily, practice it with the teacher and with another pupil before trying to project it to a group or whole class. Reading with intent to communicate content that one knows and cares about in this way is vital. Hearing the melody of words on a printed page is a skill that improves comprehension; indeed, it *is* comprehension of a strategic sort. It strengthens both the bonds of communication and the ego of the learner.

When some degree of skill and self confidence are established, group exercises may be even more helpful. Different individuals may read aloud the same passage to make it mean different things. At times the teacher will need to demonstrate to a group how a passage should sound and then have pupils try to match their oral reading to hers, sometimes chorally, sometimes singly.

I have tried to show that choice of individual or group instruction is a means to an end, not an end in itself. The stimulus of a group in opening up different responses to a controversy can be truly dynamic. That solitary reading—interacting with an author without the interruption of others – can be a meeting of minds, is witnessed in many biographies.

Particular skills can profit at times by group or individual instruction, depending not only upon the skill to be taught, but equally often upon the state of the learner. Is he easily distracted by others? Does he tend to imitate more confident pupils? Does he need a good bit of adult teacher support? If so, he may profit more from five minutes of teacher time alone several times a week than from working with a group for twenty minutes every day.

Changing Views of Modern Teachers

This is not the time or place for a how-to-do-it consideration of individual reading plans nor of group reading plans, whether homogeneous within a class, or across lines *à la* Joplin. A groundswell of interest in individualization is evidenced in the continuing array of articles on this subject. In her lead article in *The Reading Teacher*, December 1957, devoted to the theme "Classroom Organization: Different Viewpoints," Nila B. Smith noted that the earliest teaching of reading was always tutorial and individual *(3)*. However, the apparent orderliness of prearranged and fairly constant groupings brings real comfort to some teachers. The apparent casualness of many shifting groups is entirely congenial to others. I deplore the rigidity and the attitudes that stem from the former, but I also deplore the paucity of experience for the pupil who reads alone without human interaction in a track of prearranged materials judged to be at his "level" and appropriately coded for him to follow "at his own rate." Such programing can become isolation, not individualization.

In spite of these concerns, I confess to a guarded optimism that our profession is progressing in the direction of greater flexibility and respect for pupils as learners. Blakely and McKay, in surveying the practices of 113 teachers in fifty school systems in Iowa, reported a wholesome range of individual practices to supplement a basal reader organization and considerable awareness of their goals of teaching *(1)*.

If this greater diversity of goals and activities can be grafted upon a basal reader group organization, then more fluid grouping based upon interests, specific needs, friendship patterns, can also be achieved. Next steps in professional growth on a large scale may well move toward relating solitary work or dynamic interaction to specific instructional goals and to children's needs for complementary, sustaining human relationships through reading.

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2. Organizing Instruction in Ungraded Primary Schools

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All children grow, but not alike.
One must be lifted, another must climb,
A third is just tall enough to see for himself – ANONYMOUS

HOW MANY of our classrooms today are geared just to that third who are tall enough to see for themselves? Does the traditional graded structure in most of our nation's elementary schools adequately teach those who must be lifted and those who must climb?

The traditional graded school, with its emphasis on arbitrary standards for each grade, is an attempt to make the child fit the school. Rather than ask if the child is ready for school, we should be asking if the school is ready for the child. We know that children make progress in terms of their own growth and ability, not by the calendar or by a set pattern.

The Non-graded Primary Unit is one form of organization which attempts to fill the needs of individual children by breaking down the rigid lock-step system of grades. Numerous variations of this plan exist and are called by many names, such as "Non-graded," "Ungraded," "Appropriate Placement Plan," "Continuous Progress Plan," "Unit Plan."

Two Corpus Christi elementary schools, Carroll Lane and Wilson, are piloting a Continuous Progress program in which eight reading levels are substituted for the three grades of the primary school. Corpus Christi has no public kindergartens. The child who has much difficulty climbing three large steps may be able to take smaller steps with ease. Extension of time necessary for mastery of skills is possible at each level.

These eight levels correspond to the usual basal textbook organization:

Level 1—Readiness
Level 2—Pre-Primer
Level 3—Primer
Level 4—First Reader
Level 5—2-1 Reader
Level 6—2-2 Reader
Level 7—3-1 Reader
Level 8—3-2 Reader

Beginners are given a readiness test and are grouped according to results of the test and the teacher's judgment. Information about some children who have attended private kindergarten is also available. Progress through the primary years will vary according to the child's readiness for school, his ability, maturity, motivation and other factors. The basic difference is in *timing*: every school expects its students to take the eight steps, but the graded structure demands a certain proficiency at a certain time. If mastery is not attained, the traditional teacher must either retain the child or promote him when she knows that he is not ready for the next grade.

Under a continuous progress plan, average and superior children will move through primary school at about the same rate as they would in a graded structure, but with greater opportunity for enrichment. Immature and less able children will move at a slower pace. Some will catch up, after initial immaturity, and others will need four years in primary school *(3)*.

Examples of Progress

The following chart of Carroll Lane grouping at the beginning of the 1965-66 school year shows the enrollment in seven levels distributed among ten teachers. Children were initially placed at their independent reading level.

In September the ten classes were grouped like this:

	Levels							
Teacher	1	2	3	4	5	6	7	8
A	20							
B	26							
C	30							
D	30							
E		4	12	10				
F			7	19				
G				30				
H					9	20		
I						16	15	
J							36	

On April 12, the picture looked like this:

Teacher	1	2	3	4	5	6	7	8
A		9	14					
B			13	16				
C				30				
D				29				
E				4	10	11		
F					8	18		
G						29		
H							16	15
I							7	23
J								32

When a child has completed a basal reader, related activity book, and supplementary books, he is given the basal reader achievement test. If test results show that the necessary skills have not been mastered, the child continues with new stories from another reader at the same level of difficulty. Each child must master the skills at each level, but he is never made to feel that he has failed by having to read the same material a second time.

Some Results of the Corpus Christi Plan

Both Wilson and Carroll Lane staffs feel optimistic about the results of non-grading. Christine Rockefeller, principal of Wilson School, states that the number needing four years in primary school has been reduced from 14 percent to 4 percent.

Ginn Reading Readiness tests were given to all children in Carroll Lane at the beginning of the 1965-66 school year. The children in the present sixth grade class were not in the non-graded plan; fourth and fifth grade children were. Test results show the number of children who scored in the "Need Special Help" category were: Grade VI, 14; Grade V, 4; Grade IV, 5. There were approximately 90 children in each grade level. Graded tests are of little value for statistical purposes in the non-graded primary unit, since children are not expected to be "on grade level" at a specific time. However, these tests have great merit as diagnostic tools.

During the first non-graded year a study of the progress of each class was made, using Metropolitan Achievement tests as one evaluative measure. Fall and spring medians of two second-year groups are shown as follows. The top group was composed of children who were ready for 2-1 readers in September. Children in the low group needed to start at pre-primer level.

	Top Group		*Low Group*	
	Fall	*Spring*	*Fall*	*Spring*
Word Knowledge	3.2	4.6	1.8	2.4
Word Discrimination	3.9	4.6	1.8	3.0
Reading (Comprehension)	3.3	4.4	1.3	2.7
Spelling	3.6	4.7	—	3.4
Arithmetic	2.6	3.9	1.6	3.0

Summer Maintenance Classes

A constant concern of primary teachers is the child's regression of skills during the summer. Therefore, maintenance reading classes were established on several Corpus Christi elementary school campuses. Classes were limited to 15 to 25 children. Those children who attended were able to maintain skills already attained and in many cases to move ahead to the next level. New, fresh reading materials were provided for these classes.

Emotional Climate

Students, teachers, and parents feel less pressure since there is not the constant threat of retention. Also, grouping practices allow some children chances for leadership that are not found in completely heterogenous groupings. Since all children are allowed to progress at their own rates, they do not experience constant failure. It must be admitted, however, that those children who are making slower progress are aware of that fact, and sometimes put excessive pressure on themselves or each other.

Parents' Acceptance

For the most part, parents accept and approve the Continuous Progress program. It simply "makes sense" to them. Several parent meetings are held during each term, at which the principal explains the program and answers questions. There are frequent parent conferences in which teachers and principal discuss the program. To be sure, there are some parents who have difficulty accepting the idea that their child needs four years to complete primary school because they cannot understand the difference between this plan and retention. These parents usually have not attended the orientation meetings.

Reporting to Parents

Pupils' progress is communicated to parents by a combination of oral conferences and a report card, which is a variation of the primary report cards used in other Corpus Christi schools. The card is

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a checklist, which includes the child's current reading level and a listing of the meanings of the levels.

A cumulative reading list which includes textbooks mastered and dates each level was begun is kept in the child's cumulative folder.

Some Problems

A number of problems have been encountered and some have not been solved. First, state textbook policies make it difficult to have appropriate books available at all times. Title I funds should make acquisition of books possible for eligible schools. Carroll Lane has purchased some extra books since it is imperative that children have a variety of basal readers. Multi-level materials and library books are also widely used. New materials need to be developed. Frank Brown says that we should not use presently available "graded" books at all. "They just won't do."

Another problem relates to the non-grading of other subject-matter fields. Traditional teachers have become accustomed to placing a child in a level of reading appropriate to his ability, but lack of time has made it impossible to teach other subject areas in ability groupings. Because of this experience, teachers tend to keep grade level requirements in mind when planning curriculum areas other than reading. Evidence shows mathematics has been fairly well adapted to "levels" teaching and achievement scores have risen comparably with reading scores. However, much in-service training is needed for teachers to adjust the total program. A child who needs a fourth year in Carroll Lane Primary School still will have a limited amount of repetition in some areas.

Too large an enrollment in primary classes is always a problem. Non-grading does ease the situation since it reduces the span of abilities in a room, but the teacher still does not have the time she needs with individual children. Smaller classes for immature children, teacher aides, student teachers, and cooperative teaching can improve the program.

The Role of the Principal

The principal must be deeply involved in all the planning and development of the non-graded school. To him falls the responsibility of leading the staff in planning and initiating the program, "selling" it to the community, orientation of new staff members, grouping the children, obtaining materials and advising teachers about their uses, and maintaining enthusiasm.

He must make the final decision concerning the children who will be given the extra year in primary school and help parents and children understand and accept the idea. He also makes the decision on whether some very able children should complete the eight levels in two years and go on to fourth grade. Frank R. Dufay says, "Is it ever proper to penalize a child for learning at a rapid pace by depriving him of a year of schooling? I must contend that it is a rather strange reward" *(2)*.

The principal must know the children, the teachers, and the curriculum. The success of the non-graded program, as is the case with any new program, will depend in large measure upon the positive support of the building principal.

Summary

Brown tells of a youngster who had looked forward to beginning school. But after the first day he was disenchanted and, in answer to questions said, "Oh, school is not such a much!" *(1)*

If we are to make our schools "such a much" for all our children, we must provide a curriculum which will challenge not only those who are just tall enough, but also lift those who need lifting, and provide unlimited space for those who must climb.

The non-graded school will not solve all the problems. In fact, it is just a key which opens doors through which teachers often discover more problems. But through those open doors we see a flexible school organization in which teachers may give children greater opportunities for growth and development.

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B. INTERMEDIATE LEVEL

1. Constructive Ways of Grouping for Reading Instruction

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WHAT IS THE best way to group children for reading instruction? We know, for instance, from past experiences that neither children nor parents are misled by the use of such terms as "Crows," "Robins," and "Doves." Not much time elapses before some child inevitably asks, "Are the 'Crows' the dumb ones (or the smart ones)?"

Child psychologists and sophisticated researchers are quick to point out that children have different needs and that pupils cannot be grouped on the basis of acceleration alone. There is no such thing as a purely homogeneous group, since any two persons are sure to have different abilities and aptitudes. Grouping plans, at best, only narrow the range of abilities. This is the basic premise under which any and all grouping plans should operate.

Guideposts for Grouping

Nearly all authorities agree that grouping of some kind is both desirable and necessary, since the range of reading abilities continues to steadily widen from grade to grade *(2)*.

If we agree that grouping is necessary, what guideposts should we follow in developing our grouping plans? First, any plan must be flexible to allow various children to move from one group to another as the need arises. Two researchers *(1)* recently surveyed this aspect of grouping and found that teachers agreed that mobility was necessary, but they (the teachers) failed to carry out mobility in actual practice. The administrators of the teachers observed that children tended to remain in the same groups throughout the year.

Second, the furniture and other physical aspects of the school must be conducive to groupings. Tables and chairs must be movable so they can be easily arranged for any grouping formation.

Third, children's interests must be taken into account in the grouping procedures. If we expect children to be active participants in any one group, we must analyze their different interests and place them accordingly.

Fourth, and finally, the type of grouping followed should depend on several factors: the enrollment of the class; the teacher and her background and training; and the materials available for the program. In any case, common sense would dictate that there should never be more groups than a teacher can handle at any one time. There is certainly nothing sacred that would dictate that a teacher must have three groups. Two groups may suffice or as many as four groups may be needed.

One significant factor is the selection of a constructive grouping plan. From the literature, it appears that a clear-cut answer to such a decision is yet to come.

Each of the more commonly used plans —the "Joplin Plan," individualized reading, and the more traditional three-group basal materials approach, has strengths and limitations. The purpose of the following discussion is to help the teacher to decide which plan might be most useful to her in light of the items outlined.

The Joplin Plan

The "Joplin Plan" is an inter-grade plan of grouping of pupils in grades four, five, and six in which each of the pupils is sent to reading level classes on the basis of his reading test scores and the observations of the various teachers. Under this plan a sixth grade child, for example, may be sent to one of several reading classes from the fourth to the eighth grade levels. Basal reading materials are used in each of the classes.

If it is properly introduced in a given school system, this plan appears to be a constructive method of grouping for reading instruction. In a recent study of the plan as it is used *in* Joplin *(3)*, I found a number of this plan's significant advantages:

The range of reading achievement levels in the instructional groups in grades four, five, and six with which each Joplin teacher was concerned was reduced materially by the inter-grade ability plan. The number of reading levels that might be expected in a heterogeneous class was reduced as much as 5.6 grades in one school.

All sixteen principals who were interviewed believed that their patrons had a favorable reaction to the plan of grouping chiefly because the pupils were placed at levels where they could succeed.

All of the 100 parents were interviewed and found to be at least slightly familiar with the plan. In general, the group thought the "Joplin Plan" compared very well with other plans and saw few, if any, limitations of it.

All but one of the forty-three teachers interviewed had a favorable reaction to the plan. Twenty-six teachers would like to see this plan of grouping extended to other subject areas. The teachers noted many more advantages than limitations to the plan, since there were eighty-eight responses indicating advantages while only forty responses indicated limitations.

Joplin pupils do a considerable amount of voluntary reading as evidenced by the fact that 60 per cent of all the pupils in the city of Joplin participated in the Missouri State Reading Circle program during a recent school year. The 1,232 pupils who participated in the program read a total of 40,404 books.

The plan may have some limitations in actual use as a grouping procedure for reading instruction. The following statements reflect the teachers' attitudes toward the program as observed during the visits by the investigator in the teachers' classrooms and in the remarks made by teachers during individual interviews.

Seven teachers in the buildings with small enrollments complained that they had to instruct two reading level classes during one reading period. (Teachers in the buildings with large enrollments were assigned only one reading level class during a given reading period.)

Five teachers indicated that the plan may have been responsible for some social problems in their classes. This was especially true when sixth grade boys were placed in the same room with fourth grade children. (The vast majority of the teachers indicated, however, that social problems were virtually non-existent.)

Seven teachers admitted that even with the grouping plan the ability range was still too wide and that more teachers and smaller groups were needed. In contrast to this opinion, a few teachers gave the impression that they felt that their groups were "homegeneous" and that further differentiated instruction was not vital.

There was some question in the mind of the investigator relating to the amount of planning and correlation that took place in a few instances between the reading teacher and the homeroom teacher. This type of plan calls for a sizable amount of correlation and in some instances it may be difficult for busy teachers to confer regularly.

In analyzing both the advantages and limitations of the "Joplin Plan," one can safely state that the procedure may be very profitable and should be carefully considered as one of the outstanding grouping techniques in reading instruction.

The Individualized Approach

There have been many attempts through the years to develop an instructional program in reading which would reach the individual child and his particular needs. Many teachers have discovered that intraclass and inter-class grouping arrangements have merely narrowed the ability ranges and do not really meet the curricular demands of a given child. Child development authorities have long said that a good reading program should be geared to the pupils' interests and ability levels.

The individualized reading movement was launched several years ago by May Lazar, Jeanette Veatch, and others. Under this program each child constituted a reading group; thus, a class of twenty-five children in effect had twenty-five groups. Each child was asked to select a book on his interest and ability level from a large stock of books available to each room.

The philosophy of Willard Olson pervaded the individualized reading movement. It is his belief that a child learns best when he is able to seek and select those experiences and tools from his environment which are on his ability level and which interest him. Under this arrangement a given child is not held back or unduly "pushed" by other children who have lesser or greater abilities.

A number of ingredients are necessary for the successful operation of the program: (1) a large supply of books with a wide range in readability, interest, and topics; (2) a resourceful teacher who can plan carefully for the individual conferences and the sequential development of reading skills; and (3) a community whose philosophy allows the teachers to engage in a reading program other than the traditional basal materials approach.

There are several advantages of the individualized approach which make it a constructive method of grouping for reading instruction.

Some studies involving individualized reading and other methods of teaching reading appear to indicate that the children in the individualized programs read many more books than do children in other types of programs.

Children are motivated to read at increasing levels of difficulty, since they are not held back by other children whose abilities are not comparable to theirs.

The teacher has time to work individually with each child and to get to know his real strengths and limitations as well as his interests in and attitudes towards reading.

A number of curriculum specialists have been concerned about the possible danger of lack of sequential development of reading skills in the individualized program. In any case, the program requires an alert teacher who is a careful planner and understands the developmental aspects of the complete reading program. If we agree that it is not possible to have a homogeneous group with more than one person, the individualized approach may be one of our most significant methods of grouping.

The Basal Materials Approach

The basal materials approach in which the teacher places pupils in three or four groups on the basis of reading ability is the most common grouping procedure used in reading instruction. The children are under the close supervision of the teacher and she is able to assess their reading capabilities both as individuals and as members of the group. The good teacher moves pupils from group to group according to each child's progress in the total reading program. Although this approach is most common, some teachers have been guilty of not moving children from group to group as their needs arise. All too often Henry is dubbed a member of group three today, tomorrow, and forever and, irrespective of his accomplishments, is not allowed to move to a higher group. Properly used, the basal materials intragrade grouping method will continue to be one of the most effective means of grouping pupils for reading instruction.

Summary

Grouping for reading is necessary to provide for the wide range of reading abilities to be found in the average classroom. Several grouping plans have been used and advocated, but all of them have advantages and limitations. A study should be made of the school's educational philosophy, its students, and the general make-up of the community before a grouping plan is initiated. A grouping program that is successful in one community may be unsuccessful in another community. This should be considered seriously before any one grouping plan is finally adopted.

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2. Organizing to Care for Individual Differences

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INDIVIDUAL DIFFERENCES among and within children create persistent and enduring problems in education. The normal curve of distribution illustrates the extent of inter-individual differences among a group in almost any measurable ability. The curve seems to be an artifact of nature—appearing in economics, sociology, physics, and education as a description of recurring variations of phenomena.

The problem of *intra-individual* differences gets far less notice from educators but is as persistent—and probably as important—as differences *among* human beings. Anastasi presents the view that the differences in various traits within a single individual are 75-80 per cent as great as the differences in a single trait among members of a group *(1)*.

Examination of achievement test results reveals how true this is. Among second graders in September a variation of three grade levels in reading ability is normal. As grade level increases the variation within the class increases. A table of Stanford Achievement Test Scores for a fifth grade in September reveals a variation of five grade levels in word meaning and eight grade levels in paragraph comprehension. The variations in arithmetic, social studies, science, and language are almost as great.

An inspection of the scores reveals great differences in abilities *within* children. While the average variation is only slightly over three grade levels, intra-individual differences are found to be as great as seven grade levels in one case, six grade levels in two cases, and four to five grade levels in eleven cases—out of a class of thirty children. Bear in mind that the Stanford does not measure physical, social, or emotional differences—all of which directly affect learning.

This persistent and enduring problem has led to the creation and use of many types of administrative organization. Each succeeding educational generation rediscovers homogeneous grouping, inter-class and intergrade grouping, subject departmentalization, team learning, and individualized instruction. The names vary, but the XYZ Plan, the Dalton Plan, the Joplin Plan, the Contract Plan, and all the rest are cut from common cloth.

Each plan has sought to make it possible for teachers to have a group of children of similar reading ability at a given period. Each plan, in its own way, accomplishes this. Teachers clamor for any such change that will narrow the range of achievement; and when the change is made openly laud it and quickly announce that the best of all possible educational worlds now exists.

Research studies, however, seldom find that any single plan consistently produces better results than more conventional methods of organization. While Cecil Floyd *(2)* may "prove" that the Joplin Plan is superior, William Powell *(6)* and Pauline Williams *(7)* "prove" as emphatically that it is not.

Wherein lies the answer to the enigma? It probably lies in at least three directions: the Hawthorne Effect, the teacher factor, and the unadapted total school situation.

"New" plans often get superior results because they excite teachers and children to greater and more productive efforts. Once the excitability effect of newness wears off the results under the "new" plan are no better than the old. There are countless examples of this in human institutions and endeavors outside education.

Nevertheless, we should not overlook the potential value of the deliberate use of change to produce a Hawthorne Effect. Sometimes it may be desirable to replace a basically productive method with one that is intrinsically slightly less productive, for the sake of jolting complacent teachers and bored children into a state of heightened interest and effort.

Teachers themselves often keep a new method of organization from proving its intrinsic superiority over the long run. They fail to fully capitalize on the advantages of a new situation. They tend to lapse into old ways of doing things after the initial stage of "newness" disappears. The writer once visited a junior high school where all seven ability groups in the ninth grade were using the same history text. This circumstance could hardly be construed as taking full advantage of the grouping plan.

It is axiomatic that what the teacher does with children makes a substantial difference in learning. While new organizational patterns make possible new and more profitable courses of action, they do not necessarily bring about basic changes in teacher behavior. Teachers often continue to behave in the old patterns—for a time with renewed vigor, it is true—when a new organizational pattern is effected.

It may be that in our present stage of knowledge the state of affairs is unavoidable. Educators are almost unanimous in agreeing that the ineffective teacher is different in important ways from the effective one. Yet there is an almost complete absence of research-derived knowledge concerning *which* personal and professional characteristics distinguish the productive from the unproductive teacher. Until we gain such knowledge are we likely to be able to cause teachers to effectively adapt their behavior to new organizational patterns?

The writer contends that intrinsically valuable organizational patterns often fail to get results because the total school situation—including teachers—is not adapted to them. Buildings, administrative policies, teacher knowledge and attitudes, and available materials, are suited to old patterns. Frequently a new organizational pattern utilizes the existing situation with the few changes it is possible to make in it without major surgery.

One interesting new development, the non-graded school, seems to have a good chance of meeting its promised potential, when certain conditions obtain. The Garden Springs School in Lexington, Kentucky, in its first year of operation was an example of a promising situation.

The school plant was specifically designed for non-gradedness. Classrooms are arranged in complexes, with each primary grade classroom twice the size of a normal room and arranged in a complex with another room of the same size. Each intermediate grade classroom is four times the size of a normal room. Bookcases on rollers provide readily movable partitions to cordon off classroom-size working units for home-room groups of 30-35 children. Such partitions are moved to enlarge work space when two to four classroom units are combined for some activities. Carpeted floors reduce noise levels that might become unbearably high in a classroom of sixty to one hundred fifty children.

Children are grouped and regrouped for various types of learning. It then becomes possible for children in a primary grade group of thirty to work on six or seven different reading levels, depending on their needs, and still stay within their "room" and within sight of their "homeroom" teachers. Intermediate grade children may have a "choice" of as many as twelve different reading levels on which to work.

In such a situation the fifth grade class containing eight different grade levels in reading comprehension can be successfully taught. An individual child whose achievement in the various subjects ranges over six or seven grade levels can work in each subject with a group of children on his achievement level.

Teachers who are able to work efficiently and harmoniously in such an environment do not emerge full blown from our present teacher education programs, nor do the principals of such schools. In the case of the Garden Springs School a principal of unusual flexibility and perceptiveness was found. Although he was a graduate of a somewhat traditional program, he had absorbed many imaginative ideas and had an unusual ability to introspectively expand them, to plan a school plant wherein they could be implemented, and to recruit a staff that would mold the ideas into instructional practices.

In staff selection the sought-after abilities were imagination, flexibility, eagerness to try new ideas, good academic records, and energy. Many of the instructional procedures were devised as the program evolved.

The limitations of materials were not easily (and actually not completely) overcome by teacher ingenuity. Basal readers formed the core of instruction. Grade level markings (and the grade level concept among the children—and possibly, quite subconsciously among teachers) were deterrents. Nevertheless, critical observers felt that in the situation the needs of various children were well met in the reading program.

The library was a bulwark of strength in the program. It was labeled "The Materials Center" and contained filmstrips and many other types of non-book material for child use. Children were encouraged to use it at all hours of the day. Sprawling on the floor on cushions to read books was encouraged and practiced.

Achievement test results at the end of the year showed, as was expected, better-than-average achievement. The factor or factors responsible for the success cannot be easily determined. Were they due to non-gradedness, or Hawthorne Effect, or superior teacher ability, or what?

Studies by Anderson and Goodlad *(2)*, Hillson *(5)*, and Halliwell *(4)* reveal the superiority of reading achievement of non-graded pupils over pupils in schools having more conventional organization. Other studies show no difference. In the judgment of the writer, carefully conducted research on the effects of the non-graded school remains to be done.

Man is, if nothing else, a creature of change. Change is the watchword of our times. Innovation in education is a necessity, not a luxury. The administrator must, if he is truly a leader, innovate and seek new ways of thinking, organizing, and doing. In this direction lies our hope of progress.

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C. JUNIOR HIGH SCHOOL LEVEL

1. Organizing Reading Instruction in Departmentalized Schools

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MODERN READING INSTRUCTION is often characterized by its concern for differentiation in technique, materials, and organization. Basal reading programs exhort flexible grouping. Individualized approaches direct children to a variety of levels and topics so that grouping becomes a temporary expediency for a short-term purpose. Language-experience techniques guide the learner into utilizing his oral-use vocabulary in written form. Programed instruction in reading is pitched to the individual, not to a group.

Departmentalized instruction, a mainstay in secondary education though less common in elementary schools, has shown some tendencies for wider acceptance under the guise of non-gradedness and homogeneous grouping. Within departmentalized classrooms, usually of 50 to 60 minutes duration, elasticity and differentiation are sometimes embroiled in conflict with restrictions imposed by time, place, and resources.

Good reading programs, regardless of the organization and setting, have some common similarities *(1)*. A penchant for serving individual needs is a basic one. To be a good situation for reading instruction, a departmentalized arrangement must face the same scrutiny and evaluative criteria that are used in judging all reading programs.

If any organization inhibits or detracts from the goals established for reading instruction its use should be seriously questioned. A good program permits the use of multi-level materials and never restricts the child to reading books of only a certain grade level. Circumstances should allow for free, uninhibited reading. There should be group work and individual work. Skill growth must be measured and not taken for granted. Diagnosis of strengths and weaknesses should be an essential part of any reading design. Records should be maintained for every student. Attention should be given to oral and silent reading. Comprehension checks should be a regular part of good reading instruction. The best reading instruction should provide skills for learning rather than offer reading as an end in itself.

Can these characteristics of a good reading program be included in a departmentalized situation? Can the restrictions faced by departmentalized reading instruction possibly be assets? There is ample evidence to support contentions that self-contained classrooms do not in themselves assure differentiated instruction nor do they monopolize all rights to effective teaching. Self-contained classrooms with rigid structuring of reading periods to conform to a daily schedule are certainly not unknown. The fact is, they are commonplace.

Learning may be integrated without keeping children in the same classroom all day. Likewise, keeping them in the same classroom does not assure integrated learning *(2)*. "There may be no bells during the day as in most high schools, but the pupils move from activity to activity according to a schedule and the clock, nevertheless. It is really amazing that elementary schools have adhered so closely to such an arrangement in the self-contained classroom where the teacher is largely free from school-wide divisions in the instructional day" *(3)*.

Numbers often present a problem to the departmentalized reading teacher. If she differentiates instruction, differences must be made for large numbers of children. Rather than a single group of 25-35 children, she must often serve five or six times that number. It must be kept in mind that the departmentalized teacher has the greater advantage of specialization. Her efforts are channeled toward the specifics of reading improvement. The responsibility of a spectrum of subject fields is not on her shoulders. For this reason, it may be easier to differentiate instruction in a specific area for many students than to give a few students competent instruction in many fields.

Books and materials may easily have greater utility in departmentalized reading programs. Because of the funneling of large numbers of students into a restricted area during the school day, individual items and books have greater exposure to more pupils. Programed materials, reading kits, and audio-visual reading aids are conducive to use all day long and not for a small segment of time.

Because mobility, flexible use of library facilities, and scheduling of schoolwide reading specialists for assistance can be frustrating in departmentalized reading situations, some sort of compensation is in order. Compensation may take the form of bringing more materials to classrooms for shorter periods of time, and scheduling the use of outside specialists for assistance with one class so the regular teacher may use recommended approaches with other classrooms and individual pupils.

To reduce ranges in ability, many schools have adopted a departmentalized arrangement for teaching reading. Reducing ability ranges does not eliminate many other differences that make rigid, lockstep teaching unsuccessful. Specialized vocabulary becomes more pronounced with age. Comprehension ability varies, and reading rates also vary greatly although standardized tests (and other bases for grouping homogeneously) reflect similar total reading scores.

Individualized instruction, flexible grouping, and careful diagnosis are magnified needs for good reading programs operating in a single room for a definite period and with a specialized teacher. Within the confines of an assigned room and period, diagnostic, corrective, and remedial reading services must be offered in a manner equally as effective as that used by good self-contained classroom teachers.

Where reading instruction is segregated in departments, there is a tendency to consider reading a subject rather than a skill that is used for learning. Mary C. Austin and Coleman Morrison believe departmentalized reading instruction not only fosters the subject concept of reading, but reduces the effectiveness of communications between parents and teachers on the reading progress of children *(4)*.

There are, however, good departmentalized reading designs that fit the needs of pupils, teacher, and parents. If staffing, space, time and materials tend to lend themselves to this kind of organization, it can be an effective arrangement for reading instruction.

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2. Effective Ways of Organizing Classroom Activities

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Importance of Reading Prior to Junior High School

READING INSTRUCTION in the junior high school is directly influenced by the reading instruction that occurs from kindergarten through grade six. Children need good kindergarten programs where reading readiness is so important. Those children who are not ready for reading after kindergarten should have a longer readiness program in first grade. Attitudes toward reading are built at this time, and junior high school may be a little late to change them.

Many materials and approaches are now available to teachers, and these new ideas should be tried out to find the best ways to help children read. Children should have materials and instruction at their reading levels in all grades. Word attack skills must be emphasized as the vocabulary of junior high school books is quite difficult.

Study skills need to be emphasized in the middle grades to help the child in the junior high school content fields. Remedial reading should begin as soon as the child falls behind his expected level. Junior high school teachers need to work with elementary teachers in meetings, in-service training, and reading council meetings. The emphasis should be in working together, improving the reading ability of pupils, and discussing methods and materials rather than ignoring or criticizing each other.

Importance of Reading in the Junior High School

Before the organization of junior high schools, reading was usually one of the regular subjects for all children. With large numbers of pupils in grades seven to nine in one building, it became possible to enrich the curriculum with art, music, industrial arts, science, and other subjects. Because the length of the school day did not increase, something had to give in the program, and it was convenient to assume that children learned to read in the elementary grades. Reading was dropped as a subject and correlated with the rest of the language arts program.

Direct instruction through reading classes is absolutely necessary in the junior high school. Just as the idea that every teacher is a guidance counselor sounded good on paper but has not proved practical, so too has the idea that every teacher is a teacher of reading been unsuccessful, because anything important cannot be everyone's business in general and no one's business in particular. It is important that the entire staff be concerned with reading. But someone must be responsible for a well-planned reading program. This takes time, training, and effort. Reading is too important to be left to chance. All boys and girls must be assured of the best reading instruction possible, and this can occur only when the program is directed by competent leaders through direct instruction.

Diagnosis

Children vary in intelligence, background, attitudes, and other similar areas as well as in the ability to read. An attempt must be made to determine levels of reading competencies so that a good reading program can be planned.

A group reading test administered at the beginning of the year can be used to place children in proper materials and/or ability groups. Tests that yield comprehension, rate, and vocabulary scores are especially useful with regular junior high classes. Any reputable test will at least indicate the various levels in the class and provide some indication of the instruction needed. In many cases the grade placement on the test gives an optimistic picture of a child's ability to perform in material at that level, and many teachers assign materials that are easier than the grade placement indicated by the test.

The diagnostic tests needed depend on the pupils in a teacher's class. Low ability groups may need tests in phonics, basic sight words, oral reading, listening, or structural analysis. Information other than reading, testing that may be used in the diagnosis includes intelligence scores (be cautious of low I.Q.'s on the records of poor readers), attitudes and interests, home and school background, and health information including recent auditory and visual screening results.

Group and individual diagnosis should be continued throughout the school years. Adjustments will need to be made with materials and/or ability groups because children grow at different rates and because we may have over or underestimated the reading level of a child as a result of a group test.

Instruction

Reading instruction in grades seven through nine should be based on the needs of pupils as determined by each teacher's diagnosis of his pupils. Schools in disadvantaged districts may have to emphasize basic skills normally taught in the primary or intermediate grades for most of the children. Other schools will be located in districts which tend to produce elementary school pupils who need only very advanced training in the junior high school.

Most children will progress through the primary and intermediate grades in a normal manner and will be ready for work in vocabulary, comprehension, speed, and study skills in the junior high school. Exercises in structural analysis, use of context clues, work with the dictionary, and wide reading, will all help to improve children's vocabularies. All work to increase speed should be accompanied by a test of comprehension. Fortunately there are many commercial materials which, when matched with the right child, will aid in helping to improve these areas.

Instruction in Grades Seven and Eight. (8-4 plan). Children in grades seven and eight in the 8-4 plan are generally placed in either regular classes with a wide range of abilities, in ability groups, or in small remedial groups.

In a heterogeneously grouped seventh or eighth grade in an average district, children in a seventh grade class will be reading at many different levels. *Figure 1* is a typical week's work for such a seventh grade class. This program takes into consideration the levels usually found in an average seventh grade class. No basic textbook can be used successfully with the entire class because the reading levels are so different.

When classes are ability-grouped in grades seven and eight in the 8-4 plan, there is still a wide range of abilities in each reading class because most schools using this plan will not have over three sections of children in the seventh or eighth grades. The top child in the lowest ability group is usually far superior to the bottom child, and a multi-level approach is still needed. A weakness of this plan is that usually all three sections of a grade level must meet at the same time because the children may not be grouped for the rest of their classes. This means that three teachers, rather than one, must plan lessons and that a good reading teacher can be used for only one section. An advantage for the slow group is that a set of books such as the Harcourt-Brace-World companion series, which will be much better suited to the needs of the typical slow group than will a regular basal textbook, can be used as the class textbook.

Remedial reading can be given to those seventh and eighth graders who have serious problems in reading. These children need to meet with a trained teacher in groups of four to eight from two to five

FIGURE 1 — GRADE 7 WEEKLY LESSON PLAN

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
High	SRA IIIa Reading Laboratory or Controlled Reader	Paperback Discussion Group	Readers Digest or Reading for Meaning 8-12 or Be a Better Reader 2-6	Better Reading Book II or III	Basal Textbook
				Reading for Understanding, Junior Edition	
Average	Better Reading	SRA IIIa Reading Laboratory or Controlled Reader	Basal Textbook	Basal Textbook	Readers Digest, Advanced Skill Builders or Reading for Understanding, Junior Edition
	Reading for Meaning 7			Be a Better Reader I	
Low	Basal Textbook Companion Series	Basal Textbook Companion Series	SRA IIIa Reading Laboratory or Controlled Reader	Readers Digest Skill Builders 1-6	Using Context A-F or New Practice Reader A-E
		Phonics We Use E or F		Webster Word Wheels	Recreational Reading High Interest Books

days a week. Junior high school pupils with severe reading problems have learned to avoid participation in reading activities in regular classrooms. Remedial teaching should involve their writing, reading orally, and doing other activities that make it difficult for them to tune themselves out. Several activities should be planned for each session to keep the attention of the children. A typical day's work might include basic sight words, a phonics game, one skill lesson from a commercial skillbook, and oral reading using high interest and low readability books.

Instruction in Grades Seven to Nine (6-3-3 plan). If a junior high school reading class is taught by a high school teacher who is subject oriented (literature), is untrained in the teaching of reading, and is content to stay that way, and who uses the same materials and techniques for all children except to go slower with remedial groups in a basic textbook written for average children, then the program will not succeed in reaching the goals of a good reading program. Unfortunately, this is frequently the case in a junior high school reading program. Conversely, if the children are grouped according to ability, if teachers are trained, and if proper materials are available, the reading program should be successful.

The 6-3-3 plan has the advantages of larger numbers of pupils for more effective grouping, the concentration of reading instruction to a few teachers, and, because of this, the possibility of well equipped reading rooms where the many materials needed for a successful program can be properly used.

Most of the children in an average junior high school can be placed in regular developmental reading classes where literature books plus a variety of skill materials can be used. Those who need special instruction can be placed in remedial classes where primary and intermediate grade level materials of high interest can be used.

Instruction in Grade Nine (8-4, 5-3-4, or 4-4-4 plans). The 2,400 pupils who enter Evansville high schools each year seem to fall into four categories not including special education. Children in the bottom ten per cent cannot read at a sixth grade level according to the latest norms on the *Stanford Achievement Test*, and are placed in a remedial reading class called Reading I. Those who score between the tenth and thirtieth percentiles are enrolled in regular size reading classes using the companion series of the Harcourt-Brace-World books. The other seventy per cent of the children are placed in regular or advanced classes and use a ninth grade literature book.

The remedial reading class can last for as long as four semesters, but credit is given for only one. At the end of the semester that a pupil can read at sixth grade level, placement is made for him at the beginning of the companion series program. Remedial reading and developmental reading are taught in a specially equipped room which has pacers, a tachistoscope, reading films, and a variety of skill books and high interest, low readability recreational books. Developmental reading is taken by all high school pupils who come to the reading room with their regular teacher to work under the reading teacher for an intensive four weeks course. Children in grades seven to nine can also take a comprehensive reading course in the summer, which never duplicates materials used in the regular program.

Staffing Problems. There are problems in staffing any program in grades seven through nine. In the 8-4 plan used in Evansville, there are thirty-three schools out of forty-five that have grades seven and eight in their buildings. No school has over seven sections of reading in an eight period day, so under ideal conditions thirty-three teachers would teach reading. This year there are 105. The 8-4 plan causes staffing problems because special rooms or teachers are needed for such subjects as home economics, art, music, physical education, and science. Modern mathematics is difficult, English requires a competent teacher, and many materials are needed in a good social studies program. When there are three sections each of the seventh and eighth grades, it becomes convenient to make reading the "swing" subject.

Bulletin A-1 of the Illinois Department of Public Instruction, *The Junior High School Program in Illinois,* highlights the problem of teacher preparation for grades 7-9. Many teachers in junior high school are prepared to teach in the elementary or high school and are waiting for an opportunity to transfer to those schools. A large number of English teachers who were trained to be high school teachers have had no course in how to teach reading.

Conclusion

Many difficult problems confront junior high school educators as they attempt to plan the best reading program possible for their children. Some of these problems are selecting an organizational plan suitable for their children, providing in-service training, and providing proper tests and instructional materials.

There are many effective ways to organize classroom activities. Any successful method will require a trained and dedicated teacher who is willing to find out the needs of his children and to plan a reading program based on those needs.

D. SENIOR HIGH SCHOOL LEVEL

1. Programing Instruction to Meet Individual Differences

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AS EDUCATORS we cannot help being excited by the rapid development of educational methods and instrumentation with their promise for improving learning. The onslaught of new ideas and new devices—automated teaching machines, televised teaching beamed over several states, audiovisumatic systems, computers adapted to self-instruction, telemation, and so on—brings at once the hope that these new techniques and devices will enhance learning and the fear that they will detract from it.

Educators cannot afford the waste involved in being partisan to the camps that have developed—those who would introduce these new developments wholesale into the curriculum without proper cautions as opposed to those who take the no-nonsense view that use of such developments will lead us down an Orwellian path from which there is no return.

In this brief paper, an attempt is made to offer a rationale for the position that the educators' basic task is to seek to use these new ideas and techniques flexibly—to use them in those situations where they can more efficiently and effectively help us to achieve our professional goals.

Establishing Some Basic Definitions and Points of View

Senders' *(1)* definition of a teaching machine properly focuses this professional responsibility on the teacher: ". . . the only true teaching machine is an adaptive (learning) device; such a device is a teacher, rather than merely a communicative channel for a teacher." Teachers trained in the preparation, use, and evaluation of programed materials necessarily focus on those matters that are central to the teaching act—an analysis of the desired behavior changes and the most beneficial modes of effecting those changes.

Programed Instruction. Pipe *(2)* usefully defines programed instruction in terms of four characteristics:

1. *Small steps.* The material to be learned is presented in "optimally sized increments." (That last phrase avoids the question of how big is "small".)
2. *Active participation.* The student is continually being made to interact with the program.
3. *Immediate knowledge of results.* As soon as a student has made a response, he discovers whether his response was appropriate.
4. *Self-pacing.* Each student has his own copy of the program. His rate of progress is determined by the speed at which he works his way through the program.

These characteristics force us to state our objectives in specific behavioral terms and to recognize the different learning styles of our students. The teacher who programs instruction by utilizing these characteristics or principles is forced to a basic orientation toward the student. If the program does not produce the desired changes in student behavior, the onus is on the program and the program is revised until it works. Such familiar alibis as "The student is stupid," or "He is not paying attention" are not possible. Classroom research on the programing of instruction will hopefully be centered on the *significant interactions* in entire teaching systems—teachers, devices, subject matter, and students. Research so centered will personalize the teaching act rather than depersonalize it as so many opponents of the new technologies maintain.

Quintillian asked two thousand years ago that the individual not be neglected, that he be questioned and encouraged to strive for victory (so arranged that he gains it), in this way drawing forth his powers through praise and reward. Judicious use of programed instruction should aid us in this task.

In essence, programing refers to the arrangement of materials to be learned, and it goes without saying that good educational design demands an order of presentation that will be effective in promoting learning. This concept is not new. Educators have always tried to present material in effective ways—from easy material to more difficult, in logically ordered sequences, from general to specific etc., and always with repetition and review of special points. However, the new technologies have forced us to give systematic attention to these essential matters.

Unfortunately most textbook treatment of programed instruction is limited to discussion of linear and branching techniques and ignores a very different view called adjunctive programing.

Linear Programs

Briefly, in linear programing the material is broken up into small units and presented in successive *frames.* After answering the first question or filling in one or more blank spaces in a statement, the learner turns to the next frame where he gets a check answer and the next unit and questions. This process is repeated to the end of the program. There is no provision for varying the sequence except to repeat a set of frames before proceeding to the next set. The characteristics of linear programing are the step-by-step procedure, the active constructed response required of the learner, the prompt reinforcement of every response provided by the check answer, the self-pacing permitted the learner, and the built-in assurance of successful response.

Branching Programs

Branching refers to several methods of varying the presentation of items in a program. Crowder's *(3)* technique is to introduce alternative sequences according to the response made by the learner. An error leads to more information and corrective procedures. Another type of branching involves choice of alternative subsets of items at key points in a program. For example, a set of questions might be introduced to determine whether or not the learner has attained mastery of a principle. If he answers the questions correctly, he is allowed to proceed to the next unit; but if he runs into difficulty he is given more material dealing with the same principle. The term branching is also applied to a technique that involves no more than skipping over a number of items. If a learner answers a certain key item correctly, he is allowed to skip over a certain number of subsequent items.

Adjunctive Programs

Adjunctive programing is a term used by Pressey *(4)* and others who believe that self-instruction should be an adjunct to teaching rather than the main medium. Pressey's view is that the *initial* presentation of most types of instructional material should not be in bits and pieces but in a larger, meaningful whole. Most often this would be by textbook, but it might, for example, be by field trip, demonstration, or experiment. After the first presentation has given the learner a chance to "move about freely in the material" and to grasp its larger structure, self-instruction might very well be used to enhance the clarity and stability of the subject matter. Used in this way, a self-instructional program "will deal only with issues which need further clarification or emphasis. Such adjunct autoelucidation will *not* cover everything, may jump from one point to another or even back and forth."

Selecting items for such an adjunctive program would involve a determination of those points in any subject matter that cause the most difficulty for learners. The order of the presentation of the items would not be particularly important, for the structure of the subject matter is presented in other ways. The initial error rate is not of crucial importance either, for the student is expected to correct his own mistakes. In Pressey's opinion, the items should usually be presented as multiple-choice questions with one notably clear right answer and "only such wrong alternatives as express common misunderstandings."

It is this last view of programed instruction which seems to hold the greatest promise for those of us who teach the humanities where there are no absolutely certain answers but only a set of possible alternatives to be judged according to their special merits.

Research on Programing Instruction for Individual Differences

In reviewing the research on programed instruction, Smith and Smith *(5)* reported that programs have been used to teach students at all ability and grade levels. The considerable body of research seems to justify the conclusion that programed instruction techniques can be used effectively at all grade and ability levels with some indications that the techniques are more effective with school children than with college students. They conclude that the relative advantages of programed instruction for different ability levels depend on such other factors as type of subject matter and type and difficulty of programs.

Stolurow *(6)* concluded from his own research and other relevant research findings that within limits it is possible to compensate for intellectual differences by designing optimal programs. The phrase to note here is *within limits*. If we are striving to teach limited criterion behavior within the capabilities of all the learners in a group, then a carefully sequenced linear program self-paced by each individual learner may do the job. On the other hand, if we are interested in stimulating each learner to realize his fullest potential, such a program would only be a first step, and possibly a boring first step. Even so, we would expect the bright students to learn more than the dull whether or not differences appeared in achievement scores. Along with the assertions that appear in the literature to the effect that good programs "permit the quick and the slow to attain fairly comparable levels of mastery" *(7)* are other observations that the real learning achievement of bright and dull students is not always measured adequately by the posttests used in programing research. Self-instruction may mask certain differences among learners, but it does not actually eliminate the differences as the wording of some research might seem to suggest. Various researchers emphasize that care must be taken to avoid bringing brighter students down to the level of programs that can be mastered by the slower students.

From a comprehensive review of the research on programing for self-instruction, Smith and Smith conclude that although complete-course programs are useful for some subjects and for some special teaching and training needs, adjunctive programs appear to be more appropriate for general school needs.

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2. Organizing and Scheduling a Developmental Reading Program

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SEVERAL FACTORS CAUSE secondary school teachers and administrators to take a careful look at senior high reading programs. Our school population has changed considerably in the past fifty years. Lack of full-time employment for young people, the social and economic values attached to a secondary school diploma, chronological promotion, and an increase in the school-leaving age have resulted in young people staying in school for longer periods of time. Fifty years ago, many of these boys and girls would not have entered high school.

Not only have the numbers of those who stay in school increased but the composition of our secondary school population has changed. This is a second factor which causes us to take a hard look at our reading programs. Today we must provide for young people of different socio-economic and ethnic groups, of different cultural backgrounds, and of different abilities and interests. We must be able to give them an education, or rather "educations" of which both they and we are proud.

The third factor which causes us to examine our reading program is a somewhat belated realization that reading has to be taught. Reading is developmental in nature. Not everyone of the same chronological age can be expected to read equally well.

Before we can consider the organization of senior high reading programs, we must be familiar with earlier provisions for reading instruction. Some schools are finding that a Reading Improvement Committee is useful for sharing information regarding what is being done and for determining what improvements may be made.

At the primary grade level, these and many other questions need to be answered. Is instruction geared to the abilities of boys and girls? Are teachers of beginning reading aware of various methods of instruction so that they can adjust techniques in order to employ those by which a given child, or group of children, learn best?

At the intermediate grade level, do all teachers continue the development of reading skills through systematized instruction? Is work-study reading in the content subjects provided for boys and girls of differing reading abilities? Is class size such that the teachers can help individuals who are experiencing difficulties? Is there provision for a sound remedial program? Do classroom teachers work closely with the reading teacher?

At the junior high level, do teachers use different materials with slower sections? Is corrective and/or preventive work provided for all seventh and eighth grade boys and girls? Is remedial work continued for those who have not reached their indicated ability?

When the answers to the above questions and many others have been obtained, the senior high teachers are ready to consider what their organization for reading instruction should be. Right here there is likely to be a rather serious difference of opinion. Some teachers will suggest that the hiring of a "remedial" teacher will solve the problem.

While it is true that work should be continued with certain students who are late maturing, upset emotionally, come from foreign speaking homes, or from atypical cultural environments, such remediation will not reach every student. Indeed, the numbers should be reduced as earlier clinical efforts restore boys and girls to their regular classrooms. A good remedial program is part of a good developmental program, but it cannot and should not be substituted for it.

Other teachers will suggest that a class called "Reading" be included in each student's schedule each year he attends secondary school. There appear to be two serious limitations to this way of providing for reading instruction. First, there is no body of subject matter that can be labelled "Reading" in the way that we speak of "social studies," or "English." Reading has to be "in" something or some body of subject matter. Second, the purpose of the whole school reading program is to make readers independent. It scarcely seems logical to promote independence in reading by "spoon-feeding" everyone with a subject to be taken every year of school.

Both the remedial program, continued for some until they leave school, and the junior high provision for reading instruction are important components of a Developmental Reading program. But the only way to make a reading program truly effective is to place it where it belongs—in every classroom.

Efforts are being made in the preservice training of teachers to increase their knowledge of classroom techniques for improving learning and study skills in both the Language Arts and content subjects. However, in-service training should complement pre-teaching experiences. One or two days devoted to a cursory look at the school's reading program, or a required series of meetings after school on a K-12 basis are relatively ineffectual. A brighter hope for increasing the effectiveness of the classroom teacher appears to be through what might be termed "informal in-service training." This is possible in those schools fortunate enough to have one or more competently trained reading teachers.

There appears to be a curious disagreement as to the function of the reading teacher. Administrators frequently think in terms of so many boys and girls needing remedial help. This help is certainly important; but there is a long term view, also, of the role of the reading teacher. Once accepted by the faculty, the competent reading teacher has countless opportunities for making suggestions concerning newer materials, more effective procedures, and for questioning techniques which help remove the barricades to learning which poor reading and study skills place between the learner and his book. Overall responsibility for the school's reading program should be one of the functions of the professionally trained reading teacher.

Classroom teachers, particularly Language Arts teachers, have a commitment to the sequential teaching of reading skills. Here, a *Reading Skills Checklist*, similar to the one developed by the State Education Department of New York (single copies available from the University of the State of New York, State Education Department, Albany, New York 12224) is of considerable help in deciding who teaches what and when. Individual teachers may question the grade placement of specific skills and there are likely to be individuals and even whole classes for whom instruction comes too early or too late, yet this checklist helps bring order out of chaos.

Certain skills (map, chart, and graph reading, and outlining, to name a few) may be introduced by the Language Arts teacher but actual use is in materials found in the content areas. The problem is "How does a school staff organize itself so that content teachers are aware of what skills have been taught?" Effective application in content materials depends upon timing and upon increased understanding of the reading skills involved.

One organizational pattern which fosters exchange of information of the sort necessary to implement the refinement and development of skills after they have been taught initially is the formation of teaching teams. If a reading teacher is included on each "team," a situation is established whereby more effective in-service training is accomplished. The reading teacher and the language arts teachers can work with other members of the team at designated times during the school day.

Language arts teachers may wish to build into all college-bound senior English classes a "get-ready-for-college" reading program. A less effective way, in that it does not reach all students, is to make this work elective or optional after school. In any event, such a course should include listening skills, note-taking from short college-type taped lectures prepared by other members of the faculty, creative reading from several sources, with the preparation of an outline of a term paper or the actual writing of the term paper, speed of comprehension work employing books such as Baker's *Reading Skills* (Prentice Hall), *Reading Laboratory IVA* (Science Research Associates), and Wedeen's *College Reader* (G. P. Putnam's Sons).

Scheduling remains a problem. Many teachers will at first feel that they do not have the time to cover required curriculum and provide practice in reading skills as well. However, with increased attention to purposive assignments of different kinds and questioning designed to clarify the problems encountered in the subject matter to be read, many teachers find that they can apply reading skills while they are covering the required curriculum. Reading classrooms or laboratories can be set up in each school so that readers in need of help can use study periods to advantage.

One other problem of scheduling merits consideration. Where reading improvement programs include reading class instruction offered by itself, usually no credit is given for the class; but, where it is combined with language arts classes, credit is given.

In summary, the senior high developmental reading programs should include remediation for those able to profit from it, a reading skills program taught in all language arts classes and applied to content reading in other subject areas, and work for the college-bound designed to make them more effective readers of college-type materials.

CURRICULUM BUILDING IN READING

A. PRIMARY LEVEL

1. Strategies for Teaching Sound-Letter Relationships

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TODAY'S TEACHER has a real problem in planning and teaching phonics or word attack. He has his choice of the use of simplified alphabets, color, linguistic programing, "programed learning" materials, new phonics programs in basal readers, spellers, language books, workbooks, filmstrip, tape and computer form. These alternatives have increased the problem of making judgments about what should be taught and how it is to be taught.

Not too many years ago, the matter was more simple. Word attack was taught as the fourth or fifth step in a reading lesson. The content was built into the design of the lesson by the authors of basal readers. With a minimum of supplementation, teachers felt that these guidebook and workbook activities, correlated as they were with the story in the basal reader, provided the material needed to do the job. But in the last decade or two, methods and materials for teaching pupils how sounds are represented by letters have proliferated. This has happened partly, of course, because of a pendulum swing back to "phonics." Much vital and productive activity, however, has come from new insights into linguistics, the perceptual process, inductive or discovery methods of teaching, and the overriding concern for intensifying instruction for every pupil at his own level and rate.

I would like to suggest five standards my colleagues and I have used as the basis for the development of a program for teaching sound-letter relationships. Perhaps these standards might serve as guidelines for teachers who are developing or evaluating the validity of programs in this aspect of reading and spelling.

Standards for Teaching Sound-Letter Relationships

1. The program must provide linguistically sound content and structure.
2. The program must provide for self-discovery by the pupil.
3. The program must provide multisensory experiences including touch and movement.
4. The program must provide pupils with opportunities for the application of skills in many settings.
5. The program must provide opportunities for each pupil to work at his own level and rate.

Obviously, the "strategies" referred to in the title of this paper have to do with a technology which provides strong affirmative answers to the questions suggested by the standards.

For each standard I will discuss elements of a program that contribute to better pupil understanding of sound-letter relationships.

1. *Is the program linguistically sound?* In the light of present day linguistic research, a program designed to teach sound-letter relationships should, I believe, have the following characteristics:

a. It should include strong emphasis from the beginning on the idea that vowel and consonant speech sounds are represented by letters.

b. It should develop this understanding by programing its beginning vocabulary in large measure on words in which there is a one-to-one correspondence between sounds and letters.

c. It should present these words in spelling patterns in which there is a minimal contrast in sound and letter representation from word to word in the pattern.

d. It should lead pupils systematically and logically from such spelling patterns to those which are less regularly represented.

e. It should include the study of vowel sound-vowel letter relationships practically from the beginning.

f. It should immediately provide oral experience in which the words studied are used in phrases and sentences so that pupils become aware of the need for thinking of the way the words sound in the larger intonational setting.

g. It should be flexible enough to include words which are less regular or even irregular in the early stages if these words are needed to make language more interesting, more meaningful, or more like the sound of language.

In short, linguistic research supports two major ideas which must be wed in programing sound-letter relationships: (1) it must capitalize on the consistent sound-to-spelling correspondences and patterns or rules in American-English spellings, and (2) it must immediately provide contextual settings for words studied that cause them to be used in a more natural linguistic environment.

2. *Is the program structured to provide for self-discovery by the pupil?* All of us as teachers respect the importance of discovery. Discovery is one of the most rewarding experiences in teaching. It might be called the "Aha!" experience . . . a gasp, the light dawns! "I've got it!" These are events teachers strive to bring about. How is this done in teaching sound-letter relationships?

As we have noted already, pupils must understand that spelling patterns represent sounds. We want this understanding to grow by their involvement in and exploration of these patterns. In this way pupils will be led to discover significant sound-letter relationships. I should like to illustrate a way of programing for discovery through pattern studies. We sometimes call such exploration the game of "What's My Rule?".

Put the following patterns on the chalkboard:

Pattern 1	*Pattern 2*	*Pattern 3*
bat	*bat*	*bat*
mat	*bit*	*bad*

We ask pupils (1) to read the words in the pattern aloud, (2) to sort such words as *bas, cat, but, bam* and *bot* into the pattern sets, (3) to extend the pattern sets with other words that belong, and (4) to formulate the rule. Actually pupils who can sort given words into the right patterns and who can find other words that belong to the patterns, have "found the rule" in the most essential sense. The ability to verbalize the pattern or formulate the rule should not be hurried. Indeed, it is questionable whether it is helpful at all to many young pupils or to slow pupils to focus on the abstract statement of the rule.

Here are further pattern contrasts programed into the *What's My Rule?* form. Notice that they provide minimal contrast between words not only within a pattern but also from pattern to pattern:

Pattern 4		*Pattern 5*
bat	→	bet
mat	→	met
sat	→	
↓		

Pattern 6		*Pattern 7*		*Pattern 8*
tan	→	tin	→	ten
pan	→	pin	→	
man				
↓				

Here are further examples of patterns designed for discovery activity. Patterns 9 to 12 maintain the one letter-one sound change in successive words and between patterns as a way of introducing the spelling patterns of long sounds.

Pattern 9		*Pattern 10*
pan	→	pane
man	→	mane
can	→	
↓		

Pattern 11		*Pattern 12*
pan	→	pain
ran	→	rain
man	→	
↓		

The more complex aspects of sound-letter relationships in English are gradually presented in related patterns like these:

Pattern 13	*Pattern 14*	*Pattern 15*
hope	snow	boat
home	low	coat
mole	yellow	soap
↓	↓	↓

in which pupils get to know the alternative ways a consonant or vowel sound (long o in above patterns) is represented in English.

3. *Does the program provide multisensory experiences including touch and movement?* Certainly our knowledge of the psychology of perception should suggest a strategy for improving the quality of perceptual response to words and to spelling patterns.

In the earliest experience with words and patterns, all pupils should have experience in tracing and writing as well as seeing and saying these elements. Further, for those pupils whose memory is poor as evidenced by lack of recall or weak recall from day to day, tracing and writing should be extended.

At one time it was widely believed that tactile-motor experiences in learning words should be restricted to the language disabled pupil. Today, we are more and more coming to the view that such perceptual training should be developmental and preventive.

4. *Does the program provide opportunities for application of skills in many settings?* It is quite common for teachers to say, "Johnny knows the rule when we work with it on the board, but he can't apply it when he meets a new word in his reading or spelling."

The reason for a pupil's inability to apply rules in part resides in the way in which rules are taught. Frequently, pupils are too strongly directed toward the verbalization of the rule rather than to the pattern of words which are the substance of the formulation of the rule.

But even when the primary emphasis is on the pattern itself and when a discovery technique is used, we still will not get transfer to reading and spelling unless we program for it. Application of what the pupil learns about spelling patterns should be provided for in several different settings—in context and in lists.

Let us use the silent *e* spelling pattern as an example: Here are some ways in which we can help pupils make this pattern a tool for independence in word attack:

a. *In independent wide reading.* Have pupils read in self-selected materials. In such books, the transfer occurs naturally in a highly motivated reading environment. Certainly many new and unfamiliar words will belong to the silent *e* pattern and with the help of the context and the high interest, such words will be attacked in their most natural setting. This medium for application is like going into the water to practice a new swimming stroke. Is there a better way?

b. *In contrived sentences.* Have pupils read sentences made up to give emphasis to the principle. In such sentences, all words except the new ones should be known.

I *hope* to get a jump *rope* and *kite* for my birthday.

Please write your *name*, the *date*, and *place* you *came* from.

In the *dim* light, he saw a *dime* in the street.

He *made* us *mad* when he *spit* in *spite* of the warning.

c. *By extending patterned lists.* We have already indicated under the discovery method how pupils may extend any patterned lists as far as they can by finding words that fit.

d. *By having pupils invent and read aloud nonsense words.* Perhaps pupils can give meaning to these words by relating them to naming some new discovery in medicine or interplanetary travel.

spane
clibe
dufe

e. *By having pupils read aloud patterned lists of words with clues built in.*

cap
cape
tape
tap
tapping
snapping
snipping
snipe
sniping

cope
cape
tape
take
bake
brake
broke
bloke

f. *By having pupils spell dictated lists and sentences which include words that fit the silent* e *pattern.*

g. *By having pupils spell words in self-dictated tests.* In such phrases and sentences as those below, pupils spell the word called for. These words are cued by a sound-spelling representation of the word, by context, or both.

to /tayst/ the food
a pretty snow /seen/

to slip and /sl___/ on the ice
The Navahos are an Indian /tr___/.

5. *The program must provide opportunities for each pupil to work at his own level and rate.* The word attack program must be tailored to the individual differences in level and rate to be found in every group. Many ways should be compiled by the teacher or by a staff for accomplishing this task of intensifying the instructional process. Three very important techniques in this category include:

a. Placing pupils at their instructional level in basal readers and textbooks; i.e., materials in which pupils read with at least 95% oral fluency and with at least 75% comprehension.

b. Using discovery activities such as those described earlier in which open-ended activities provide automatically for different levels and rates.

c. Testing to determine which spelling patterns pupils have mastered and which need to be reviewed or introduced.

In summary, by considering such matters as linguistic validity, self-discovery, perception, transfer of learning, and individualization of instruction, the curriculum builder will be able to develop or adopt programs which deal efficiently and effectively with the problems of sound-letter relationships.

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2. Day by Day Planning for Success in Reading

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READING IS SO essential for our lives today that every child should learn to read up to the highest level of his potential. To bring this about is the goal of every teacher of reading.

Although some children are capable of learning to read simply from observing others read and from frequent exposure to books, these children have exceptional aptitudes. They stand out from the group in intelligence, curiosity, self-motivation, cultural background, and in general language abilities. Every teacher of reading can assure you that most children do not "flower into reading" this spontaneously.

Learning to read is too important to be left to chance. In order that every child may learn to the best of his abilities, instruction should be systematic, purposeful, planned in the light of the goals to be achieved, and replanned daily in the light of small successes or failures, interests, and the outcome of each day's reading activities.

Day-by-day planning is necessary for three reasons:

1. *Reading requires the sequential development of many interrelated skills,* in order for the child to comprehend what he reads and to achieve a growing vocabulary of words and meanings. Learning to read well requires years of practice beginning with simple materials and progressing to difficult text. Long-range goals are divided into goals for each grade level, and the goals for a grade must be divided into the small goals of each day's reading activities.

2. *Groups of children vary in their needs and children vary greatly in abilities within the group.* No matter how carefully a teacher has planned the procedures and goals for a day's work in reading she still needs to adapt methods to reach and interest each child within the group. She can do this best if she keeps track of individual, daily performance. She can then modify the plans for the next day's work in the light of group

and individual needs. Teaching reading is creative and experimental. A plan that doesn't work out well needs to be revised and modified. Each daily plan needs to be evaluated in the light of the children's reactions, before the next plan is made.

3. ***The content of each selection or story influences the teacher's plans for each day's instruction.*** Reading cannot be taught in a vacuum. The children must read *something* in order to learn to read. Each day's story is different. Some stories may be read lightly and swiftly as the child enjoys the action and surprise ending. Other stories need to be read more slowly in order to ponder the deeper meanings and symbolism used by the author. Some stories have a setting like the child's own environment. Other stories are about characters and places that are far from home. Children need to sample many kinds of reading if they are to learn to read well, but each story needs to be analyzed by the teacher in order to plan just how to prepare the children for reading it.

Much has been said about the sequential development of reading skills. Although educators may differ with regard to the methods of instruction and the importance of the various skills, all are agreed that skills should be taught in a logical sequence from the easier to the more difficult levels.

Much has been said, too, about individual differences. How to adjust to the wide differences within a group and how best to group children for instruction are problems that are always with us and require the best thinking of administrators and educators to solve effectively.

Less has been said about how to analyze and present a story as a tool for instruction, yet this practical problem must be met every day by every teacher. This is the point of contact between teachers, pupils, and materials to the end that each child will learn to read as well as possible. This is the place where learning takes place—in the meeting of teacher, child, and book.

It is the purpose of this paper to follow the teacher's thinking processes as she analyzes the story to be read each day and as she plans instruction.

The questions a teacher first asks herself is, *"What is this story about?" "Why was it selected for my pupils to read?" "What will they get out of it?"*

The teacher studies the appropriateness of the story for her group. Will the characters and plot appeal? Is the story problem a familiar one? Are the characters the same age and in the same kind of environment as my pupils are? Is there an episode involving heroism, endurance, ingenuity, unselfishness, or some other quality that will make the story of value to the group? What special features make this story worthwhile?

The next question that confronts the teacher is, *"How will I prepare my pupils for reading this story?"* If the story setting is *different* from the environment of the group the teacher may need to build up information and imagery that will help the children to understand a kind of life different from their own. A city child may need visual aids and discussion of ranch life before he can understand the action of a story set in the western regions. A small-town child may need to be prepared by pictures and imagery for life in a metropolis if he has never seen a skyscraper or ridden a subway train.

Another question is *"How well are my children prepared to read this story from the standpoint of reading skills and reading vocabulary?"* This question will require the teacher to find the new words in the story that may need to be presented and discussed before the reading. If the story is difficult to read or understand, she may need to guide the reading in small units, or read certain passages aloud, to help the children over the rough spots. Some stories may need only a division into one or two parts; other stories can perhaps be read independently all the way through and then discussed after the children have finished the reading. In discussing the meaning of the story the teacher will need to prepare questions for children of different ability levels. To the slower youngsters she may merely ask the *who did what* type of questions. Brighter, superior readers may be guided by questions that require a greater depth of understanding and comprehension.

The teacher needs to analyze the kinds of reading skills that are needed and can be developed in each story. Some stories are good vehicles for teaching space and time relationships or cause and effect relationships. Some stories have interesting organizations of plot with flashbacks and foreshadowing of future events. The teacher may need to select the specific skills elicited by the nature of the story in planning to teach the appropriate skills of comprehension.

Another question the teacher may ask is, *"Is this story suitable for oral reading?"* If so, she may help prepare the children to read portions or the total story aloud with a discussion of how best to read orally, to portray the emotions of the characters in their actions and conversations. The use of a tape-recorder is especially valuable in motivating oral reading and demonstrating pupils' progress from time to time.

"What word-recognition skills should be stressed in the light of pupils' difficulties?" is another question that requires daily study and planning to answer and follow-up successfully. While the teacher is probably following a logical sequence in the development of phonetic and structural analysis in word recognition, she can find the specific points of weakness and the individuals needs for reteaching and reinforcement. Through her notations of how the pupils respond to comprehension questions involving word meaning and how well they succeed in pronouncing words in oral reading, she may discover individual problems. Remedial exercises may then be planned in the light of the difficulties encountered.

It is only by careful *day-by-day* and *story-by-story* planning that a teacher can serve the many needs of all the children in a reading group.

B. UPPER ELEMENTARY LEVEL

1. In-Service Planning: A Necessary Adjunct to an On-Going Reading Program

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WITH THE CURRENT information explosion, the age of experts and specialists, and the ever-present pressures to revitalize the reading curriculum, in-service programs can be expected to provide the major avenues by which innovative research techniques are relayed to the classroom teacher for immediate implementation. This on-the-job training, perhaps more than any other measure, can help break the traditional time lag between research and practice.

Some school systems now have rather refined in-service programs while others are just beginning to recognize this medium as an effective means of communicating information and cooperatively studying problems.

In-service programs vary considerably from school system to school system, from state to state, and from region to region, and it is good that they do. If such programs are to be effective, they must be designed to suit local needs—that is, every school system needs its own brand; a ready-made program won't do. This is perhaps one of the reasons that there has been so little written on the practical aspects of in-service.

Some may question the need for in-service programs with arguments such as the following: Why is it necessary to continue to train teachers who have graduated from accredited colleges and are certified to teach in a particular area? What is there to tell teachers who have spent a large portion of their lifetime teaching at a particular grade level? Aren't they the experts?

First, let us consider the demands today. Yesterday's skills are no longer good enough. There are so many areas of specialization that an elementary teacher cannot be an expert in all facets of his work. He is asked to determine the needs of each child, to program a particular type of instruction based upon these needs, and to know when to call for outside help—even to know what outside help is available. It is necessary that teachers continue to learn after they graduate from college.

Second, teachers need an opportunity to examine new materials, new methods, and new techniques in order to update

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their own teaching abilities. Too, if a school system is to maintain continuity between grade levels and subject areas, teachers must plan together to avoid undue repetition and serious omissions in the child's educational development. Some graduates begin to teach with no more training in the teaching of reading than a general language arts course. Others have had a course in the teaching of reading but, when questioned, quickly admit that little time was spent on reading beyond the primary grades. These deficiencies have to be dealt with in the local school systems if the reading program is to function adequately. In-service programs can help fill many of the gaps and help solve many of the problems.

Effective in-service programs arise from need. The needs are varied and programs designed to cope with these needs are likewise varied. Some are systemwide in structure, such as writing a reading curriculum; some are limited to a particular grade-level, such as developing readiness activities for the kindergarten; some are limited to a school, such as the staff studying the needs of disabled readers; some to a group of teachers who are trying a new basal series, or to administrators who are initiating a remedial reading program, or to subject area teachers who are learning to apply the reading skills pertinent to their grade level and subject area. Since the effectiveness of any in-service program is determined by the extent to which classroom instruction has improved, it is necessary to establish the specific purposes of the program early and to plan some type of on-going evaluation whether these evaluative techniques be formal or informal in design. Broadly stated, activities which center around teacher education on the job can be considered as in-service activities. Pre-school workshops, grade-level meetings, twelve-month plans of employment, committee work, conferences, faculty meetings, extension courses, and certain special activities are examples of such training programs.

When are in-service programs held and who assumes responsibility for them? There is no consistent answer to this. However, there is a growing tendency for various school systems to include in-service work within the school day or the teacher's contract rather than asking teachers always to devote Saturdays and after-school time to large projects. Sometimes substitutes are hired to release teachers for this work; sometimes a month or so during the summer is devoted to in-service work, especially when developing a curriculum; sometimes extra pay is given for a particular job; and sometimes school board credit is given in lieu of taking prescribed courses on college campuses to meet local requirements. However, it is doubtful if there will ever come a time when all in-service work can be done on school time or with school funds. But this trend certainly adds status to the programs in the teachers' eyes.

Who directs the in-service classes? Someone needs to pull the various activities together into some kind of a school-wide program if anything of value is to result from these joint efforts. In many systems, the superintendent, the elementary director, or a particular principal may organize and conduct these programs if there is no reading consultant. If there is a reading consultant on the staff, however, he can expect to devote a large portion of his time to in-service programs of some type. Sometimes he will conduct these directly and at other times certain staff members will assume the responsibility. For example, experienced teachers on the staff can help new teachers adjust to a new teaching assignment, demonstrate certain techniques, or explain new materials. At times, the consultant will want to enlist outside consultant services from a university or another school system, or engage a noted speaker to address a group on a particular topic. There is always a need for some type of program due to the problem of the ever-changing faculty, the developmental nature of reading, and the many factors which influence learning.

A wise consultant or person responsible for in-service programs sometimes leads, sometimes helps, sometimes instigates change, sometimes delegates responsibilities, but always observes and evaluates. He makes a constant effort to know what is going on, what problems exist, and what new and varied approaches to the problems could be planned.

The Situation in Rochester

Thirteen elementary schools, two junior high, and two senior high schools serve a total student enrollment of over 10,500 students with a staff of over 550. All in-service programs are planned in cooperation with the assistant superintendent in charge of instruction. In 1946, the eleven-month school year was initiated. Presently about 42 per cent of the teachers work the extra month. They may apply to teach summer school, work in curriculum workshops, attend summer school, travel, or work on individual assignments. There are also pre-school workshops of at least one week for all teachers—longer for new teachers—and occasionally other days are provided during the school year.

Remedial Reading Activities

Four years ago a reading consultant joined the staff. That year it was decided to initiate a remedial reading program the following term. Since there were no trained teachers available and Minnesota, at that time, did not have certification requirements in effect for reading teachers, it was decided to select two teachers from the staff and devote a summer session to training them in remedial techniques. The consultant tested students and selected 36 cases from grades 4-6 to participate in this training program. Students with varying types of disabilities and varying degrees of retardation were selected. These students were grouped according to reading level and type of disability and assigned to classes of no more than six students. Each teacher taught three of these classes daily under supervision for the four week period. An additional hour each day was spent studying various remedial techniques, learning to administer and interpret individual diagnostic tests, and learning to diagnose and to program instruction according to students' needs. Detailed lesson plans were kept and once a week these were discussed in detail with the supervisor. At the close of the summer session, each trainee was assigned to two reading centers for the following school year, spending one-half day in each. He was given the responsibility of checking referrals, organizing classes, and instructing a maximum of seven classes (42 students) daily. Since then, the staff has doubled. Four teachers now spend the day in each of the four centers. The students from the area schools come to their respective centers for special reading instruction. All four teachers have now met state certification requirements and, in turn, are sharing their information and training with their fellow teachers. Last summer, for example, each reading teacher worked with other summer school teachers assigned to teach reading for the summer program. They planned and conducted weekly seminars, visitations to remedial classes, and special programs aimed at helping classroom teachers have a better understanding of reading problems and remedial techniques. During the school year, the visitation program was continued. Each classroom teacher who had a student enrolled in the reading center was encouraged to visit at least once in the fall and once again in the spring in order to see the student in the small group, success-centered environment and to observe certain remedial techniques used with certain disabilities.

During this time, the reading consultant met with the elementary principals several times to discuss the remedial program, its procedures and objectives, and to discuss problems and offer suggestions concerning ways they might help their classroom teachers implement what the children were learning from this specialized instruction. The approach to training remedial teachers and relating this specialized instruction to the rest of the staff has worked out remarkably well. Classroom teachers are better able to adjust instruction in the classroom, and the students have a more positive approach to improving their reading ability.

Curriculum Building Activities

Four years ago, developmental reading was added to the curriculum for all seventh and eighth grade students in the junior high schools. Teachers were hired; materials were selected; and instruction began. Since it was decided to use multiple materials rather than a single textbook, a need to have some sort of curriculum guide became urgent. An in-service class for this purpose was set up.

Seven teachers met two hours weekly for six weeks with the consultant and developed an outline guide to follow until a summer session could be used to write a more complete curriculum guide. These seven teachers were granted Board of Education credit for their curriculum work. (A teacher in the Rochester school system must earn up to six quarter hours each five year period in order to satisfy local requirements. The credit earned from local in-service courses may be substituted for college credit.) Since that time, several of the citywide departmental meetings each year are devoted to curriculum topics. At all times, the department chairmen in each building are available to assist teachers in interpreting the program for classroom use.

A Vertical Reading Committee representing each building and grade level (K-12) was organized to study current problems and to serve as a direct means of communicating reading problems and information to and from the rest of the staff. As a result of this committee's work, it was decided to develop a reading guide for grades one through six starting the first available summer session. Twenty-three teachers and administrators initiated this project last summer and will continue their work this coming summer session. In order to provide this committee with first-hand information when they are ready to select the material to be used as the main resource, experienced teachers are now using six of the leading basal series in several classrooms in various parts of the city. After the curriculum guide is written, plans include adding helping teachers on the staff to help classroom teachers implement the new curriculum and improve teaching techniques.

Teacher Training

The reading consultant conducted a basic reading course for elementary teachers two years ago. Recommended procedures for developing oral and silent reading skills, for developing various word analysis skills, and special diagnostic and remedial techniques suitable for classroom use were presented. Board of Education credit was granted for this work.

Several closed circuit TV and lecture type extension courses in reading from the area colleges have been offered in addition to the local in-service courses. College credit is granted for this work.

Workshops

A pre-school workshop is scheduled each fall for newly employed teachers. A period of this time is devoted to orientation activities in reading. Last fall, a separate workshop was conducted by and for the reading and special education departments during these pre-school activities. Specialists from the Mayo Clinic, other community services, and from the public school staff participated by discussing the roles of the psychologist, the neurologist, the social worker, and the school nurse and by indicating how other special teachers can contribute to a well-developed educational program. This project informed and promoted a better understanding among the various special areas.

In the fall each secondary school department will be allowed to use up to two days of the pre-school workshop time to organize and conduct its own workshop within its particular subject area for the purpose of updating instruction. In the elementary department, plans are being made for consultants from some of the publishing companies to meet with groups of teachers who will be using the new basal materials on a trial basis.

Present plans include launching a developmental reading lab program when the new high school opens in the fall. Since this is a new experience for Rochester, an outside consultant who has had experience in this type of work will be invited to explain this type of program to the secondary school staff and to discuss what opportunities a developmental reading lab can be expected to provide for high school students.

Improving Instruction

While the Rochester consultant was visiting elementary reading classes, it was noted that some of the same instructional problems kept appearing again and again. The teachers were asked if they would like a series of voluntary meetings dealing with four of the problem areas appearing most frequently. Many of the teachers replied affirmatively so these meetings will be scheduled at the earliest opportunity.

A professional library is maintained for the use of the staff. Book displays have been organized so that teachers can examine library books first-hand before suggesting titles to be ordered. Idea exchanges have been held to share techniques teachers have found effective in meeting a particular problem or teaching a particular skill. Bulletins and newsletters have also been used as needed.

Group meetings are held frequently. These range from a grade level arrangement to discuss a problem concerned with curriculum to a building or smaller group arrangement to discuss problems peculiar to the building.

The city reading teachers have their own reading organization in addition to belonging to their area, state, and international reading associations. This city reading organization is designed to meet certain social and professional needs. At the last meeting, for example, the discussion centered around the type and amount of confidential information which should be released from the reading files and to whom. There are the usual committee meetings, staff meetings, meetings to demonstrate materials, or individual conferences when one of these approaches appears the best way to handle a situation.

The foregoing list of activities in Rochester is by no means exhaustive nor is it recommended as a prescribed course for all to follow. Perhaps your community has other needs. Whatever means you may choose to improve reading instruction in your school system, in-service programs are bound to be your most effective medium. Today, an on-going reading program maintains a varied and purposeful program of in-service training.

2. The Role of Supplementary Readers in Children's Literature

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I AM SURE THAT most people concerned with the growth of children believe that the development of interest in and taste for *good* literature is one of the most important purposes of the elementary school program; that fine literature is the rightful heritage of children; and to delay their association with it is to deprive them of memorable experiences that are as essential in the total growth pattern as are food, shelter, and other necessities. Many of us are fortunate in that we work in schools with remarkably well-equipped libraries, with well-trained librarians, and with administrative officials genuinely committed to the improvement of the library. We are further blessed in that we have the opportunity to observe and work with classroom teachers who know books, children, and how to bring them together joyfully!

Having grown accustomed to this lush environment, I found it quite a shock to read "Schools Without Libraries: Our National Disgrace." This article, which appeared in the November, 1964 issue of *McCalls*, was prepared by Francis Keppel, then U. S. Commissioner of Education. The facts revealed seem incredible; for example, Keppel points out that "in 60 per cent of our nation's elementary schools, attended by 10 million of our children, there are no school libraries. And in 84 per cent of our schools there are no librarians." If you have not read this article, I urge you to do so; it will help to explain why the current efforts to improve the library conditions must receive our fullest cooperation. The future is beginning to look much brighter, but I have every reason to assume that the quantitative and qualitative effects of future aids and grants will depend in the final analysis upon the personnel of individual school units. No doubt a little soul-searching will prompt us to admit that that is where much of the responsibility rested all along; that we have in most schools resources seldom used *properly*—if at all—to improve the quality of the literature program. Let us face the fact that until we help classroom teachers learn how to use these hoped-for quantities of new books and materials effectively, the results are going to continue to be largely quantitative in nature.

A realization of the importance of the above statement was brought home to me during the preparation of this paper. I decided to appraise the quality of the preparation of my own group of student teachers in regard to their understanding of the purposes of, and their skill in using, several supplementary readers. I chose the readers which appeared to have definite possibilities for enriching the literature program for children in the elementary school. The experience left no doubt in my mind that the teacher education institutions have a definite responsibility in the upgrading of the elementary school literature program. Since my student teachers are seniors, they have had the required course in children's literature. Consequently, I decided to initiate the activity with questions that related to the knowledge, concepts, understandings, and skills which they had brought from the course in children's literature. Using this as the basis for our appraisal, we examined the readers to determine their over all and specific potential as a resource for teachers to use in guiding children's interest in and taste for good literature. The compiled results of this informal sampling revealed that the role of supplementary readers in children's literature is significant; it includes helping the teacher to attain the following goals:

1. *Balance the reading program.* Since basal readers are not designed to afford sufficient emphasis, practice, and materials to insure a well-rounded reading-literature program, teachers soon learn that opportunities extending beyond the basal program must be provided if children are to acquire sequence and continuity in skills, habits, attitudes, knowledge, and appreciation of good literature. Normally, the teacher expects to turn to the library for resources necessary for insuring a well-rounded literature program. But we know that the library as a resource is often poor or nonexistent. Consequently, resourceful teachers soon find help in supplementary readers. Let us examine a specific sixth grade reader and evaluate its potential as a guide for teachers who are planning a well-balanced literature program. We found that it contained a generous distribution of poetry and prose; that there was a fine balance in respect to realistic and fanciful selections; that the content represented the following types of literature: (1) contemporary children's everyday experiences, problems, hobbies, and interests; (2) selections from the literary heritage—fables, myths, legends, folktales; (3) humorous and fanciful tales from the new magic; (4) historical selections; (5) biography; (6) selections about other lands and people; (7) expository material relating to science (and space), geography, and related social sciences; (8) art, drama, and similar areas. We concluded that the possibilities for using this text to supplement the content for the literature program were most encouraging. Since literature has such diversity of content, it is important that children have a chance to develop an interest in its many specialized areas of knowledge. The supplementary readers which we examined showed great promise for helping teachers guide children's experiences in and with the many varieties of literature.

2. *Provide material of high literary quality.* A glance at the table of contents of the above-mentioned sixth grade reader (and any other good supplementary reader which we examined) will be sufficient to reassure the most discriminating critic that the authors, illustrators, and selections represent the highest literary quality. For example, we found such distinguished writers of children's literature as Robert McCloskey, Robert Frost, Marguerite Henry, Walter de la Mare, Eleanor Farjeon, Elizabeth Coatsworth, Robert Lawson, Armstrong Sperry, and Stephen Vincent Benet. Then to top it off there were those incomparable geniuses with words and ideas—Hans Christian Andersen and Kenneth Grahame. Any knowledgeable teacher knows that this type of material will provide exciting and stimulating experiences for children. If children are to develop a taste for *good* literature, they must become acquainted with it very early in life. From years of observation, I myself have concluded that there are few experiences more valuable to children than those which include opportunities for reading and listening to great books. A supplementary reader that makes this type of material available to young learners is

making a definite contribution to the literature program in the upper elementary grades. Furthermore, even in the absence of a *good* library, I do not think we should become too discouraged as long as there is a great teacher ready to use these great books with eager young minds. An enthusiastic, understanding, perceptive teacher can lead children to enviable heights with just a few good books. Although we must not minimize the need for many available books, let us also not forget that a few great books properly used may bring about lasting results in the minds and actions of young readers.

3. *Satisfy children's interests.* We are constantly reminded not to underestimate the subtle power of interest to strengthen reading skill, to stimulate reading habit, and to foster appreciation for reading as a way of life. If supplementary readers had no other purpose than to help children establish lifetime interests in reading, this value alone would justify their use in the curriculum.

The Teacher's Guide gives many suggestions to help teachers capitalize upon the need to satisfy children's interests. Many of the guides which were examined for this study showed that the criteria for the selection of stories and poems included areas of interest such as exploring; discovery; science—including space; nature, animals, and other equally important interests. Attention was given to the special interests of both boys and girls.

Of course we must not ignore the fact that interest in the selections is attributable in no small degree to the way they are presented as well as to the type of subject matter they treat. The teacher's own enthusiasm also has a way of generating interest. It has been clearly demonstrated that the association of reading with interests is a very satisfactory way to heighten motivation and promote learning. Attractive illustrations also serve to increase interest in reading.

4. *Fulfill children's developmental needs.* The teacher's own depth of perception and insight will determine the effectiveness of the supplementary reader in helping to meet the developmental needs of the individual children who use such books. It is unmistakably clear that the selection of content in several of the readers had been made with children's developmental needs in mind. We found in the readers that recognition was given to the need for security, for love, for belonging, for achievement, for change, and for aesthetic satisfaction. The need for achieving satisfactory peer relationships was illustrated in a number of selections. A splendid example was found in a fifth grade reader in the episode from "The Hundred Dresses" by Eleanor Estes. The need for achievement was effectively presented in selections from a fifth grade book. They included "First Under the North Pole" by Commander William R. Anderson, "Four Silver Pitchers" by Ann Weil, and the poem "Lewis and Clark" by Stephen Vincent Benet. In a fourth grade reader we found excellent examples of stories selected to meet the need for change, recreation, and play. Ellis Credle's "The Bear and the Wildcat" is typical material to meet children's need for laughter and release. Eventually the student teachers began to see that most if not all of the selections had been chosen by the authors of the supplementary readers to illustrate one or more developmental needs. I think it was at this point that these future teachers began to better understand the purposes and possibilities of this type of resource material. The books began to take on more importance and to grow in "value," as it were.

5. *Meet individual differences.* Supplementary readers are particularly effective in helping teachers recognize and provide for individual differences by guiding each child to realize his full reading-literature potential. The teacher who observes closely and records interesting and pertinent data concerning the individuals in her class is often able to determine the best course of action to follow in guiding growth and development in all areas including interest in and taste for good literature. The varied and balanced content of the readers will enable her to meet a variety of interest needs. The Teacher's Guide contains many suggestions for activities that can be used to meet differences among children. The materials and activities in the

guides are capable of interpretation on varied levels and hence are appropriate to use with a class of pupils of widely varying ability. Furthermore, suggestions for enriching and extending reading experiences are provided in some books at the end of each story and unit in addition to the material prepared specifically for the teacher. The bibliographies provided for children's use will save time for busy teachers who want to guide the reluctant, average, and able readers in selecting appropriate materials to meet their individual needs.

6. *Extend experiences with literature.* The effective *use* of supplementary readers will give many opportunities to enrich the literature program. Most of the books we examined contained suggestions for such enriching activities as story telling, dramatization, oral reading of prose and poetry, creative writing, including plays, diaries, and poetry, and reports and other expository writing. Correlation with art was suggested; the development of listening skills to insure fuller appreciation in story telling and other sharing activities was emphasized. Indeed, there was a wealth of help available to stimulate the creative teacher in her effort to give an extra "dimension" to the literature program.

Since the content of the supplementary readers often contains expository writing as well as fiction relating to science and the social studies, this opens the door for effective correlation of literature with the activities involved in these areas. Biography, historical selections, and scientific explanations and descriptions included in the readers can stimulate interest in the content subjects. Although literature should never be employed for the purpose of providing instruction in subject matter, it can serve splendidly in supplying additional information, giving breadth to concepts, and depth to appreciations.

7. *Enrich and increase vocabulary.* The proper use of supplementary readers will also include fostering the development of concepts for general and specialized vocabularies. Since the effective use of this material presupposes careful guidance on the part of the teacher, it can be assumed that supplementary readers *can* play a big part in vocabulary development. In the examination of the Teacher's Guides, it was gratifying to find that special attention had been called to the need for teacher guidance. Since a child's depth of understanding of a selection depends upon his knowledge of the meaning of words, it becomes an important responsibility of the teacher to provide opportunities for growth in this area. Furthermore, since vocabulary plays an important part in an author's style of writing, it was good to see that considerable attention is given to suggestions for developing activities in this important aspect of reading and literature.

8. *Foster development of special skills and competencies.* The development of interest in and taste for good literature cannot be gained incidentally or simply left to chance, for children do not acquire the ability to interpret and to fully enjoy good literature by sheer exposure to it. Every teacher should provide a definite time every day for literature. This will include time devoted to instruction in literature and to the many activities that will increase children's participation in and capacity for enjoyment of good literature. Of course, literature instruction differs considerably from instruction in other areas. The alert teacher will recognize the contribution which supplementary readers can make in the literature program; she will also know that the potential of this type of material will not be fully realized unless she provides time for careful planning and guidance. She must not expect children to gain desired competence in interpretation of literature from a casual use of supplementary readers; the results will be in proportion to the guidance which is provided. Specific suggestions are included in the Teacher's Guide to encourage teachers to use their own creative ability in helping children develop the competencies that will insure their enjoyment of literature. In some of the series of supplementary readers, suggestions were given for insuring continuity and sequence in the development of these necessary skills, habits, attitudes, concepts, and understandings. Guidance in this instructional phase of the literature program is mandatory; but the techniques

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will result in depth and breadth of interpretation, not to mention the ability to enjoy and appreciate good literature. Among these desired competencies are critical and creative reading skills, such as the ability to follow a sequence of events, to predict outcomes, to follow the author's pattern of the story, to interpret figurative language, to identify with the characters, to read between the lines, to recognize the beauty of words, and to create mental images which the words stimulate. Year-to-year practice in this type of guidance will usually pay tremendous dividends to the teacher as well as to the learner. The supplementary readers can help to provide this essential type of experience.

C. SECONDARY LEVEL

1. Innovations in High School Reading Instruction

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IN OUR AMERICAN democracy the slogan "Free education for all the children of all the people" applies to all who are capable even to a limited extent of profiting from educational services. In every group of high school pupils there are varying degrees of differences in physical, social, intellectual, and emotional growth; individual behavior shapes itself within the social, psychological, economic, and cultural setting which is the environment of the pupil.

Individuality of growth in reading development has long been recognized, and the modern education program in reading instruction considers all aspects of pupil interests, needs, and abilities. A major requirement for learning, consequently, is the establishment of a high school climate in which each pupil can feel secure and wanted, in which he can express his thinking and feeling, develop a sense of personal worth, live and work with others, become motivated with a sense of achievement, and make continuous growth in his purposeful reading. To achieve this goal, the commitment of the entire staff and faculty to the improvement of reading in all content areas is essential.

Innovations in high school reading instruction include expanded library resources which are important to the curriculum of learning. They also include the work of content area teachers and librarians in a cooperative team-teaching organization, and include the work of the reading specialists to provide the faculty and staff with in-service understanding of the total reading process, and extend guidance to all students to promote continuous, meaningful reading.

Expanded Library Facilities

The resource materials in the expanded concept of the library make the library in a literal sense "the heart of the school;" and the modern high school is itself a library with resources available to the students and teachers. Innovations appropriate for learning "in these times" include experiences in observation, exploration, experimentation, reading, and discussion, with the use of multi-media aids for sensory experiencing such as tape recorders and tapes, individual film strip viewers, motion pictures, film strips, slides, and film strip projectors, microfilm readers, typewriters for student use, record players and records, collections of musical scores, collections of art objects and science exhibits, globes, maps, and art reproductions. In some libraries an annex includes the audio-visual center as a separate unit.

A wealth of books, periodicals, pamphlets, school catalogs, newspapers, and paperbacks selected by content area teachers in cooperation with the librarians as an in-service project encouraged faculty involvement in the use of the functional library and provided multi-level reading materials for a wide range of reading abilities. A sale of paperbacks provided the opportunity for the development of individual libraries. All of these materials were cataloged and organized to facilitate their independent use by students. Guidance and instruction in their use and services were provided by professional librarians and student assistants.

In addition to the main library reading rooms, innovations in library design provide, by means of sliding wall partitions and folding walls, spaces for large and small areas for group work, conferences, and study. Students engaged in independent study projects and learning projects are provided the use of individual carrels, library tables with dividers creating areas for semi-private study or reading, and larger tables providing space for working with materials. Students will use such new equipment as microfilm readers, the rear screen film projector, and overhead projectors. Listening "systems" consisting of listening posts and earphones allow small groups of individuals to listen to recordings without disturbing the rest of the group.

Under the guidance of the library specialists in some high schools, students were given orientation lessons in the use of the library resources and a *Student's Library Handbook* was compiled as a reference tool. It included the floor plan of the library and presented the library as the study center of the school. The student was introduced to facilities and materials, location of resources by sample catalog cards, the circulation rules of the library, and explanations concerning methods of checking out reference books and reserve collections. In addition, suggestions were given concerning the use of periodical guides for research reports and references for independent study. Recommendations were made to the student to use the skills and information gained in using other libraries.

Reading Programs

Innovations for more effective study skills in another large county system made provision for an orientation course for all entering freshmen at all levels of achievement for one class hour a day for a period of eight weeks. The teacher of English and the reading specialist supervised the work in the Reading-Study-Skills Laboratory. The reading specialist demonstrated the use of the equipment and materials in the laboratory. Diagnostic techniques, developmental reading instruction, and remedial reading methods were indicated as measures to help individualize the work and to help the student to be a better reader. Materials could be checked out and used in the classroom later in the year under the supervision of the teacher. The reading specialist took charge of the lower achievers, while the teacher worked with the rest of the group. One of the most satisfying outcomes of the orientation program, reported by the teachers, was that the students were given guidance in reading to achieve the goal of independent reading.

The Student Handbook Syllabus which was given to the students at the beginning of the orientation course indicated the purpose of the eight-week course in reading for which credit would be given. Major motivations were to increase vocabulary, to comprehend more effectively, and to improve study habits. How to plan, how to improve speaking, reading, and spelling vocabularies, how to take notes, how to outline, and how to take a test were some of the skills outlined in the handbook. The importance of independence in learning and keeping records of progress was stressed. This pertinent statement was included in the handbook, "It's up to you! Let's see what you can do!"

In another new reading program designed for all high school students, the purpose was to concentrate on vocabulary, comprehension, and study skills in all content areas. In study skills, students considered how to make the best use of time and how to most effectively approach various textbooks and teacher assignments. Those students who are weak in some subject areas may work individually and receive special tutoring to help each one become as competent as possible in approaching reading and study assignments independently. The reading guidance was scheduled during a study hall or homeroom period. The length of time was flexible, although some students remained in the reading center for a semester or more. Students moved at their own pace and dismissal was determined on the basis of progress.

In a large city system the head of the English Department observed the work in the reading center and learned the methods of instruction. He then provided released time for members of the department to enable them to observe and study with the reading specialist and incorporate in their teaching the skills essential to functional reading in the English units.

In other high school programs, the assumption that homework is a necessary and desirable activity for *all* students was eliminated in favor of the use of the library as a resource center for individual guidance and independent study at school. Provision for the use of the wealth of ideas and materials during the "self-contained school day" was included in the after school study time under the guidance and supervision of individualized consultant services. The extended school day was designed to stimulate inquiry, contribute to independent learning projects, offer corrective and remedial reading aids, and to some extent substitute for home study where the resources may be limited or non-existent.

Reading Specialists

The writer observed the trend to include reading specialists on more high school staffs to provide services to the faculty and students through varied in-service activities. These involved demonstrations, at the request of the teachers, to improve reading in the content areas, reading workshops, talks to classes on study skills for retention of information and vocabulary development, total faculty and staff involvement in the developmental reading program, evaluating the reading program and interpreting the achievement tests, individual guidance to students in independent learning projects, and team teaching with the librarian and other members of the faculty.

Other titles given to identify the work of the reading specialist were reading coordinator, remedial reading teacher, developmental reading teacher, reading improvement teacher, and reading consultant. The areas in which they worked were named reading clinics (for diagnosis, correction, and remediation of reading difficulties), reading centers, educational centers, reading laboratories, and reading-study-skills centers which were developed in conjunction with the library resource materials.

Conclusion

There seems to be no more democratic way to provide for the development of every individual pupil than by making learning activities continuous, meaningful experiences in *living* which are within the pupil's power of realization and which at the same time encourage his wholesome growth as a useful member of society. This is the method by which the total school program meets its objective of contributing to the education of "all the children of all the people."

2. An Integrated Secondary English Curriculum Offering Reading Instruction

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THE NEW YORK STATE Education Department has been encouraging its schools from kindergarten through grade 12 to improve their Language Arts curricula. Under this impetus, a school district in the vicinity of the present writer recently planned an increased emphasis on reading instruction in the regular classrooms of all grades. In the senior high school of the district, this emphasis on reading improvement was to be part of the English curriculum. The present writer was asked to serve as consultant for the English Department. A plan for an in-service course developed from discussions among the consultant, the Superintendent of Schools, and the English Department. Two basic course objectives were agreed upon: to introduce a new emphasis on reading skills into the English curriculum without superseding traditional English lessons, and to integrate the reading teaching with the regular teaching.

This paper will describe the principles and activities by which the in-service course sought to achieve the introduction of the reading instruction into, and its integration with, the traditional English curriculum. The material below is organized into three forces that promote an integrated English curriculum offering reading instruction: (1) certain reading attitudes of the students, (2) certain instructional attitudes of the teacher, and (3) certain reading skills of the students.

Reading Attitudes Promoting an Integrated English Curriculum

There is little point in teaching students reading skills without also teaching them reading attitudes. Foremost of these is that students regard the reading instruction as a means of upgrading their homework. They are becoming better readers to become better self-learners from reading. As the present writer has indicated elsewhere *(4)*, current academic improvement services stress students' learning on their own from reading as an activity balanced with learning in the classroom. Some colleges have revised curricula so that former three-point courses meeting three times a week have become four-point courses still meeting only three times a week, but obliging students to earn the extra point by supplementary reading. Others have instituted exemption programs enabling students to earn credit for courses that they work up without class attendance. Similarly, many high schools have established honors courses and programs of advanced standing in which gifted students are given considerable responsibility for self-learning through reading. A principle of the in-service course was that *all* high school students should look upon home readings as potentially significant educational experiences—not as skirmishes with reading before the teacher mobilizes the main lesson in the classroom.

As pointed out by Burton *(2)* in an essay that participants of the in-service course discussed, an English student needs certain attitudes, as well as certain skills, for mastering the printed page. When he reads his English assignments he should not be under the role of three possible dictators: the author, the student himself, and the teacher. The student is not so awed by the writer that he accepts as gospel everything that he reads. The teacher combats obeisance to an assigned author by expressing anticipation of different reactions from the students when they read. As the student reads, he is prompted to feel individual likes and dislikes, agreements and disagreements, strong responses and weak responses. Each student has a unique experience with his English homework.

The good reader is not his own dictator. He does not look only for familiar ideas in his reading. The teacher undermines this habit by identifying stereotyped responses and by observing that without conscious purpose a student may read for stock responses in the card index of his mind, instead of searching for the ideas in the reading itself. A student submits to another form of self-dictatorship if he feels imposed upon whenever he finds his English homework difficult. The teacher needs to guide this student into recognition of what it means to be a "student." The student controls his environment of study rather than letting it control him. His will to learn from homework is greatly influenced by where, when, and how he studies. Knowing why he should not become irritated by difficult English homework also is important. Complexity, subtlety, and richness in English readings are qualities, and not defects, of writers. As for failure after effort, it is better to have probed and lost, than never to have probed at all.

Regarding the dictatorship of the teacher, this can be forestalled by the teacher himself by certain instructional attitudes.

Instructional Attitudes Promoting an Integrated English Curriculum

The English teacher indicates to the students that his hat is not in the ring for the office of dictator. The most significant instructional attitude that he can adopt to remove the suspicion of dictatorship is use of so-called "unstructured" or "non-directed" teaching. This is instruction not based on his predetermined viewpoints. The teacher can employ unstructured teaching both for pre-reading and for post-reading lessons. The objective of an unstructured pre-reading lesson on a forthcoming assignment is to motivate the students to understand the work on their own, as opposed to telling them in advance what they should find in the work. The teacher does not prejudge a selection, as by declaring: "Read Milton's sonnet on his blindness to tell why it is a classic." He does not commit the student to a particular interpretation: "Note that Tom Sawyer has more imagination than Huck Finn, and that Tom is like Mark Twain himself;" or "What evidence can you find in the poem 'Fire and Ice' that by *ice* Frost means *hate?*" He does not disclose a plot element: "Suppose I came into this room wearing a black veil, how would you feel? Think of this when you read 'The Minister's Black Veil.' " He does not reveal special effects, as by such questions as "How does the title of the play, *The Doll's House,* describe Nora's life?" or "In 'The Bustle in a House' by Emily Dickinson, what is significant about the fact that the time after the death is *morning?*" He avoids telling students in advance of their reading anything that may interfere with the flashes of insight that come to them during moments of self-discovery of meaning in their reading.

By unstructured pre-reading devices the teacher multiplies the students' moments of discovering meaning in their English homework. One device is for the teacher orally to read to the class the beginning of a forthcoming assignment and then to invite the students to offer free reactions, while postponing his own. Another is to stimulate students to talk about experiences correlative to those that they will discover in their reading—meanwhile the teacher does not disclose specific ideas in the forthcoming reading. A third, and perhaps the best, method is to afford to the students certain background information about the author's life and milieu. If background matter is available in the regular English books, students can be asked to read it silently in the classroom, and the teacher can discuss it with them before he assigns particular selections of the author to read. Among the experimental activities of the in-service course, emphasis was given to teaching an author's background before rather than after the students read his works.

When students discover things for themselves as they read English homework, they come to class eager to talk about these discoveries. As during pre-reading lessons, so during post-reading lessons the teacher avoids conducting class lessons on the basis of his own predetermined viewpoints. He does not start by declaring, "Sonnet #29 shows us the low opinion that Shakespeare's society had of the acting profession. Which words of the poem tell us this?" or "The *Purloined Letter* is an example of practical psychology. Explain this in reference to the hiding of the letter." He does not ask: "Is this sonnet Shakespearian or Italian?" or "What is another good title for this short story?" Instead, the teacher permits his students to express their views first. He may ask: "Did you have any reactions to the poem?" or "Did any particular part of the short story strike you?" or "What feelings or ideas did you get out of the essay?" When students become accustomed to making free responses, the teacher can prime the pump with just a "How about it?" or "Who wants to start things off?"

Obviously both the students and the teacher have responsibility along with freedom during unstructured teaching. Students need to support their particular reactions to the literature, and the teacher must see to it that the students understand and appreciate the assigned readings. How the English teacher can establish such responsibility in the classroom is described in separate essays by Booth and White *(1)*, which were springboards of discussion in the in-service course, but which do not concern us here.

Besides unstructured teaching, two other instructional attitudes promote an integrated English curriculum offering reading instruction. These are a spirit of inquiry and a quest for points of view. Melnick *(3)* has described the value of questions as a teaching device, and she has deplored the neglect of attention to this device in current reading textbooks. On the other hand, recent professional literature on theories of teaching has been experimentally-minded regarding interrogation versus exposition as a teaching method *(5)*. The in-service program discussed the so-called "Socratic method," whereby the teacher asks questions designed to attain the goals of the lesson. This method was considered favorably only when students interact during the lesson. To take an analogy from sports, a desirable question-answer discussion is like the movements of the ball in soccer, but not in baseball. In soccer, the ball is passed among the players; in baseball, the pitcher throws to individual batters while the batters' fellow players sit on the bench. In either case every student can participate, but only the soccer relationship permits interplay of students.

During an unstructured lesson the discussion traffic can go off in all directions. This freewheeling is not desirable, but neither is control of the traffic by the teacher's policing. However, if the teacher encourages students to respond with forthright points of view to his questions, unorganized discussion can be prevented. The most common expression of a point of view is agreement or disagreement. Interactions of agreement and disagreement among students exercise cohesive influences on discussions. Moreover, when students agree or take issue with each other's particular points of view during a discussion, they listen carefully to their classmates and to the teacher, and they project their individual differences of opinion. These attitudes are also powerful cohesives during free discussions.

To act out a supposed episode:

Teacher (Beginning the lesson). What do you think of Sandburg's *Four Preludes?*

Mary. Sandburg certainly doesn't think much of our society.

John. I disagree. Sandburg shows that we can do something about what's wrong.

Rose. I go along with Mary. Sandburg is a pessimist.

Teacher (Re-entering the discussion to move it along). Rose, why do you call Sandburg a pessimist?

Harry (Interrupting and disregarding the question). I don't understand the first stanza. What does it have to do with the rest of the poem?

Teacher (Turning from Rose to Harry, and trying to restore the cohesion of agreement-disagreement). Harry, first let me ask you whether you agree that Sandburg thinks that something is wrong with us. Is this so?

Lessons can prove to be especially interesting when, as is inevitable, discussion traffic goes berserk or gets stalled and requires policing by the teacher. Undirected teaching for a full period probably is impossible, if not undesirable.

Reading Skills Promoting an Integrated English Curriculum

To maintain an integrated English curriculum, the in-service course experimented with the teaching of reading skills as skills of literary analysis. The skills were organized according to literary types rather than as discrete skills, and the skills were expressed in the traditional terms of literary analysis. Stated theoretically, the objective of teaching reading skills was to transcend reading behavior whose end is the ability to report on the facts and ideas of the printed page. Students were guided to read for experiencing the work: for having a sense of the author as if he were present and speaking the work to them, for having a sense of the scene as if they were actually witnessing the action of the work, for having a sense of the ideas of the work as if they were doing the thinking themselves, and for having a sense of artistic excitement as if it were they who were discovering organic unity in the different parts of the experience.

This paper will close with an example of the experimental material that was prepared by the present writer for the in-service course to illustrate the integration of reading instruction with the regular English curriculum.

Understanding a Lyric Poem

When a student must study a lyric poem to grasp its meaning, he benefits from having focal points of study. Below, sections 1-4 suggest four topics that the student can focus upon, and certain questions that he can ask himself while exploring each topic.

When a teacher needs to enter a class discussion of a poem to direct the students to its meaning, he can focus upon the four points below. He can first ask the somewhat structured ("leading") questions that appear outside of parentheses below, and these failing, he can ask the more structured questions within parentheses.

Section 5, below, "The Reader's Art," recommends basic techniques of reading that can be expected to help students to understand a lyric poem. These techniques are recommended to students as the regular approach to a poem. If, after using this approach, a student requires a more precise search for meaning in a poem, he focuses upon the points of sections 1-4 above.

1. *The Person and His Mood*. A lyric

usually expresses the feelings of a single person. Questions: Who is the person expressing the lyric? (Is the grammatical person *I*, *you*, or *he?*) What is the mood of the person? (Which words express emotion?) Is there a change of person or mood? If so, what is the change? (Which words indicate a change of mood?)

2. *The Action and Its Time and Place.* The person of a lyric usually is doing something in a particular setting. Questions: What, if anything, is the person doing? (Is the person sitting, watching something, addressing something, etc?) When and where is the action happening? (Which words express the time and place?) Is there a change of action, time, or place? If so, what is it? (Where in the poem does a change of action occur?)

3. *The Central Idea.* The author of a lyric usually leads up to a central idea. Questions: What is the central idea? (Which idea is expressed at the end of the poem?) Which ideas lead up to the central idea? (What relation has the title to the central idea? What changes in thought are indicated by stanzas, a rhyme scheme, particular indentations?)

4. *The Author's Art.* A good lyric contains imagery and musical effects. Questions: What images of things appear in the lyric? (What pictures do you get from lines x-y? Do any of the words deal with sound?) What images of abstract ideas appear? (What similes and metaphors occur? What personifications of abstract ideas occur?) What symbols occur? (What combination of pictures or other images represents the author's mood and central idea?) What sound effects appear in the poem? (Do lines rhyme? Do lines have a common rhythm? Is there alliteration, assonance, consonance, onamotopoeia?) Is there irony in the poem? (Is there an idea, image, symbol, or sound effect by which the author deliberately expresses a meaning contrary to a stated meaning?)

5. *The Reader's Art.* When a good reader begins to read a lyric in the role of a critic reading for a thorough literary analysis as well as for enjoyment, he plans to read it at least twice. First he reads to get a general impression of the poem. He reads to identify the person and his mood, the action and its time and place, the central idea, and the more obvious evidence of the author's art. When he has succeeded in this general comprehension, he returns to the beginning of the poem to read it in a different manner. Now he studies the lyric as a whole consisting of parts. He notes both the particular differences among the parts and the relationships that unify them. The fulfillment of this study is perception of the artistic unity of the lyric.

As for the good reader's eye movements over the printed page, they are irregular and unpredictable. During the first reading, his eyes move along at speeds varying sporadically within a range of a brisk forward sweep to an occasional pause for close examination. During his subsequent study of the lyric, his eye motions seem fitful. At one time they are fixed intently upon a word for several seconds and then they begin slowly to rove amid the words before and after this word. Suddenly they dart here and there in the lyric, scanning related ideas at the end, at the beginning, in the middle. In contrast to such eccentric eyeball behavior, the poor reader tends to continue reading at a slow, fairly even pace. He does exhibit one eccentricity: as he reads, he often interrupts his forward motion to jump back to reread. But when he jumps back, he resumes his rhythm of slow, fairly evenly paced reading.

The good reader is a sophisticated reader. He reads to understand the poet, yet at the same time he keeps his mind open to his own experiences. He associates the ideas of the lyric with those of his previous reading, in particular of lyrics, and with those of his life experiences. He interacts with the poet.

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3. Reading Literature: An Act of Creation

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READING LITERATURE as an act of creation demands three abilities: (1) understanding literally; (2) interpreting symbolically; and (3) appreciating the relevance of literature to life. Though I will consider each of these abilities in this order, the order in which they are commonly discussed in the classroom, ultimately all three abilities are inseparable for the mature reader who reads literature as an act of creation.

First, what does a high school student read when he reads what literature says, its literal statement? For example, what does a high school student read in this paragraph from *David Copperfield?*

> It was Miss Murdstone who was arrived, and a gloomy-looking lady she was; dark, like her brother, whom she greatly resembled in face and voice, with very heavy eyebrows, nearly meeting over her large nose, as if, being disabled by the wrongs of her sex from wearing whiskers, she had carried them to that account. She brought with her two uncompromising hard black boxes, with her initials on the lids in hard brass nails. When she paid the coachman she took her money out of a hard steel purse, and she kept the purse in a very jail of a bag which hung upon her arm by a heavy chain, and shut up like a bite. I had never, at that time, seen such a metallic lady altogether as Miss Murdstone was.

Understanding Literally

At the beginning clearly, in the middle more subtly, and explicitly again at the end, the student reads generalized interpretive statements:

> . . . as if, being disabled by the wrongs of her sex from wearing whiskers . . .
>
> I had never, at that time, seen such a metallic lady altogether as Miss Murdstone was.

These interpretive statements will probably linger longest in the reader's memory, especially after he sees Miss Murdstone in action in later chapters. Without literally repeating, the statements echo each other.

The echos have undertones, however. The generalizations are supported by highly repetitive, redundant detail: "dark," "heavy eyebrows," "uncompromising hard black boxes," "hard brass nails," "hard steel purse," "a very jail of a bag," "a heavy chain," "shut up like a bite." A literal-minded editor would probably have eliminated all those *hard's.* But Dickens knew better. Even though the reader may ultimately forget many of the clues, they multiply for a purpose.

The high school reader needs first, then, to read literature literally in two ways. He needs to be able to understand whatever explicit interpretation the author furnishes, and he needs to be aware of the way the details shape that interpretation. His awareness may be either unconscious or conscious. If it is conscious, he will be reading very slowly and analytically. If it is unconscious, he will be reading quickly. Whether he reads quickly or slowly in keeping with his purpose for reading, to read the letters (the literal meaning of reading literally), the high school reader has to be able to let the words supply him with ideas, impressions, feelings, and facts, subordinating his own experience for the moment. As Virginia Woolf puts it, the reader of literature for a time has almost to become the author *(7)*.

Learning to Read Literally

How can teachers help the high school student to develop his ability to read both generalizations and detail literally? Analysis of a paragraph, like the one from *David Copperfield*, may help, with the teacher posing questions that will lead the student to discover the generalizations, their function, and their position in the paragraph. Finding how the redundant details structure the idea the paragraph develops can help the reader realize the subordinate, yet important, role details play. Students then are expected to apply the insight they have gained through the analytic demonstration to further reading.

Yet, if the students apply the process of the demonstration too carefully, they will never get through 800 pages of *David Copperfield*. Furthermore, the redundant detail will become over-exaggerated, and it's quite exaggerated enough for twentieth century tastes. If a teacher occasionally asks students to analyze closely, the passages chosen must be key ones, and the students should then be encouraged to return-reading rapidly, absorbing unconsciously rather than analyzing consciously as they read. If a student wants to understand some point more clearly (and let it be understood that his wish could easily be aroused by his teacher, that it's not necessarily an inherent need), he should then, and only then, be encouraged to look closely at detail.

A student can also learn to become the author as he reads by becoming an author himself. In "A Generative Rhetoric of the Sentence" *(2)*, and "A Generative Rhetoric of the Paragraph" *(3)*, Francis Christensen justly claims that starting writing with narrative and description, rather than with exposition, will not only make better writers, but will also make better readers of literature. The principle of his theory of rhetoric he found in a statement of John Erskine's: "When you write, you make a point, not by subtracting as though you sharpened a pencil, but by adding." His rhetoric, based on a study of what writers do do, rather than on what someone thinks they should do, would generate detail to support a base in both sentences and paragraphs.

Students reading any novel might write a paragraph characterizing someone they feel strongly about, someone they like very much or have a strong aversion to. A student might wish to tell of his first meeting with his subject. Or he might wish to be more general, describing the person as he characteristically is, rather than fixing him at a given moment in time. In either case, the student will start from a generalized statement, supply the reader detail to help demonstrate the truth of the generalized statement, and end by summing up. There are, of course, other ways he could structure his characterization, but, as Christensen points out, this paragraph pattern is the most common. It also follows the structure of the paragraph from *David Copperfield*. By becoming a fellow creator in his own way, the student is in a better position to understand the creation others have made.

Interpreting Symbolically

As he understands the whole created by literal meaning of generalizations specified by detail, the student reader should be beginning to think about what further meaning the parts and the whole may have. He should begin to interpret for himself. To his interpretation he brings his experience of life and his experience of reading. Because individual experience is various, individual students will interpret differently. For example, though it seems impossible that anyone could really know the fictional, therefore bigger-than-life, Miss Murdstone, a student who has ever met a paler version of her will recognize her right away. To him she will seem real. A student whose experience has been happily limited to normal, natural adults, full of flaws, will receive a vaguer impression. He will need to pay closer attention to details to get the picture. Even then, he is likely to think her unreal.

Neither student, however, is free to infer that Miss Murdstone was a sweet, ineffectual person, somewhat like David's mother. A reader is not free to interpret any way he chooses, ignoring the literal clues. Yet, he is not reading if he doesn't see meaning beyond his own measurement of reality. Miss Murdstone's outer appearance, appurtenances, and actions forecast her inner weather. The method of exaggerated description also shows how deeply David was depressed on encountering yet another Murdstone. The exaggeration is typical of youth, not of age, and therefore characterizes David too. These are meanings shown, not stated; it is up to the reader to be alert enough to discover them.

Understanding the symbolic import of literal detail and explicit interpretation is a single, unified process for the mature reader, as Margaret Early has pointed out *(4)*. The high school student, however, has rarely attained that maturity. To help him become a mature reader, teachers of literature may first call his attention to the two kinds of literal statements—interpretation and detail. Then we help students look below the literal meaning. For a time, students may become very self-conscious about discovering symbols. Increasingly, however, our teaching moves from asking students first to pay attention to the literal meaning and then intuitively to fuse it into deeper significance to asking students to use literal meaning as evidence for their insights into symbolic meaning.

Note that I have not suggested that students learn to read symbolically in place of reading literally. One process does not supplant the other. In the first place, the words we say students are reading literally are themselves symbols. In that sense, all reading is symbolic. In the second place, leaping over literal detail and interpretation to pure symbolic discussion has been the cause of many a misreading, as the reader reads himself, not the piece of literature. As an example, I can cite some college freshman girls who read John Crowe Ransome's touching elegy, "Bells for John Whiteside's Daughter," as the account of a wedding. Among other clues they missed, they failed to notice the most telling clue of all: that every reference to the girl was in the past tense.

Choice of Literature in the Curriculum

To help students become mature, conscious readers of literature, the high school curriculum should start with a base of literature with fairly literal interpretation of detail and progress to literature with highly symbolic interpretation. To symbolize this progression, I would say that the choice of literature to be studied in the high school curriculum should move from Browning's "Pippa's Song" to Donald Justice's "Song."

"Pippa's Song" is very explicitly interpreted in the last two lines:

The year's at the spring
And day's at the morn;
Morning's at seven;
The hill-side's dew-pearled;
The lark's on the wing;
The snail's on the thorn:
God's in his heaven—
All's right with the world!

From their own experience of elation, students can easily see how all the other details fit with the last lines, indeed create them.

These same students could also read Donald Justice's "Song" in exactly the same way:

Morning opened

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To a good child.

It was a lovely, rosy morning, like those in a fairy tale. Mornings like that come along "once in a while."

The last four lines don't describe the day itself any more than "All's well with the world" does, but they are far more symbolic, perhaps because a fairy tale is a more finite thing than the world, which embraces so much that meaning blurs. Fairy tales are stories about the basic conflict between good and evil. Rarely in life are the issues so clearly drawn. In fairy tales good regularly triumphs, as it does less regularly in the world. A fairy tale is special; even more special is one "told once in a while to a good child."

Thinking about how the day was like a fairy tale should lead students back to the details of the description. The town pictured is one with lamps, a steeple clock, a row—no more—of shops, and brick paving. It's a fairy tale town, perhaps one high in the Swiss Alps. The light rippling the bricks like the scales of a fish moves, as a fish slips through the water. The comparison of bricks to the scales of fish is startlingly appropriate. For the sake of getting on with the point, I would summarize the significance of the poem in these terms: though beauty is transient, it does come, bringing delight. Never would I make such a summary for students. That's my reading of the poem, not theirs. They'd never say it that way naturally, and I certainly don't want to force my words on them.

There is another kind of transience in this poem which affirms both the literal interpretation of detail and the symbolic meaning. The most sophisticated way to interpret "Song" is to scan it, but that way should be reserved for the advanced student, who is so well acquainted with many poems that he will be able to see the connection between meter and meaning. Scansion will reveal a basic two foot line with a constantly shifting pattern of stress. Students who have read much poetry themselves—and who have attempted to write some—will know that the two foot line is the hardest one to vary as skillfully as Mr. Justice has done, to make his subject and the form he has cast it in part of one organic whole. That Browning varied his two foot line very little in comparison, is, of course, equally a part of the total meaning of *his* poem.

In the study of fiction, as in poetry, the curriculum should start with literature with many interpretations, only slightly symbolic, say with a novel like James Street's *Goodby My Lady. Lord of the Flies* or *The Adventures of Huckleberry Finn*—novels with interpretations highly meaningful on the symbolic level as well as on the literal level—are probably about as far as the high school curriculum for the average student will go. The fiction which places almost the entire burden of interpretation of any kind on the reader is probably well beyond a high school student, who needs more experience with literature to cope with, say, *Ulysses*.

Length of Literature to be Studied

Most of the poetry studied in the high school curriculum is short. Longer works, such as Shakespeare's plays, are studied more as drama than as poetry, although paying attention to selected poetic elements often helps to enhance the dramatic aspects. (Because of time limits, I have chosen to use fiction and poetry as examples in this discussion, ignoring the special reading demands drama makes upon the reader. That would be a good subject for a separate paper.)

The problem of length becomes crucial in the study of fiction. Percy Lubbock opened his key critical work, *The Craft of Fiction (5)*, by saying:

> To grasp the shadowy and fantasmal form of a book, to hold it fast, to turn it over and survey it at leisure—that is the effort of a critic of books, and it is perpetually defeated. Nothing, no power, will keep a book steady and motionless before us, so that we may have time to examine its shape and design. As quickly as we read, it melts and shifts in the memory; even at the moment when the last page is turned, a great part of the book, its finer detail, is already vague and doubtful.

If a professional critic of books finds it hard to keep a book before him, should we expect a high school student learning to read literature to find it easy?

I started out with a paragraph from *David Copperfield*, a fine book. But I don't think it belongs in the literature curriculum for all students to study. It's too long. Even the 400 plus page abridgment is too long, and besides, the abridgment isn't Dickens. The abridgers are right about the problem, but wrong about the solution. The literature studied in the high school curriculum should be short *and* whole.

Length, of course, is a relative matter. To a group of sophomores who have read very little, *The Pearl* is long. For a group of advanced seniors, it's a reasonable week-end assignment. Though students may have studied a novel part-by-part, it should never be so long that they cannot comfortably consider the whole in some way. Otherwise they cannot be said to have read the novel, only its parts.

Wide Reading

Is *David Copperfield* passé then? Aren't modern students missing a valuable and delightful reading experience if they don't encounter it? Yes. Of course, we all have to miss some things in the abundant world we inhabit. And a student, like one I know, who spent from Christmas to Easter studying *David Copperfield*, may be missing it and surely is missing all the other reading it has crowded out. Still there certainly ought to be a place for such a fine novel.

There is a place—for the right student at the right time. The right student will be a fast reader. Fast readers are usually experienced readers; no speed reading course can compensate for experience. So the right student will be an avid reader. He will read *David Copperfield* because he wants to, because he becomes involved in his reading, because he enjoys it. It will not be too long for him to take in his stride.

Caring for reading in the literature program, then, means encouraging students to read widely. Class study of works short enough to be considered as wholes can help them learn how to read; wide reading makes the lesson alive and permanent.

Appreciating the Relevance of Literature to Life

In both class study and individual reading, the real goal is to help students grow in their ability to appreciate literature. A common assumption I find in much of what I read and hear in scholarly discussions of literature is that helping students to read literally and interpret symbolically automatically takes care of appreciation. It's true that few readers can appreciate something they haven't understood in some way. And pleasure does come from the act of understanding, but such intellectual pleasure is not enough.

In a recent novel, *What Can You Do*, a colleague of mine, James Leigh, has shown an uncommitted monster in action. His non-hero is a college freshman at an institution very like ours. In high school the young man has been thoroughly trained to read literature. He can interpret symbols with ease, supporting his interpretations by profuse references to the details of the text. But he has no awareness that any of his interpretations might have meaning for his own way of living. He is emotionally disassociated from the values which he can understand intellectually. I think it is fair to say that he has not appreciated the literature which he has read.

In *Science and Human Values (1)*, J. Bronowski, director of the Jonas Salk Institute, defines the process of appreciation in both science and the arts:

> The poem or the discovery exists in two moments of vision: the moment of appreciation as much as that of creation; for the appreciator must see the movement, wake to the echo which was started in the creation of the work. . . . And the great poem and the deep theorem are new to every reader, and yet are his own experiences, because he himself re-creates them. They are the marks of unity in variety; and in the instant when the mind seizes this for itself, in art or in science, the heart misses a beat.

Inductive Teaching for Appreciation

How can a teacher help a student's heart to miss a beat as he reads? Selection of literature to be studied and guidance in making choices of individual reading, both will help set the student up for making his reading a part of his own experience. The method of teaching literature will be the means to his discovery of both the work of literature and of himself.

Sample materials from the Curriculum Study Center in English at the Carnegie Institute of Technology were published in the February, 1966, issue of the *English Journal*, under the title: "The Inductive Teaching of English." In the introduction to the sample lessons (which include composition and language as well as literature), the authors state the philosophy which has shaped their practice, contrasting it with the view that teaching English is imparting information: *(6)*

> Other teachers tend to think of the English class primarily as a place in which the students discover knowledge and skills. The teacher's role in this process is to provide the students with structured situations . . . [Such teachers] tend to focus upon the *process* of learning: how the student comes to an apprehension of the character of *Macbeth* or of the Captain in *The Secret Sharer* . . . Because such teachers are concerned with these emphases, they tend to pose questions which call upon the students to make discoveries and in so doing create a learning situation.

And in so doing, such teachers create a situation for appreciation. Only one more step is needed; the conscious discovery by the student that the events in literature have relevance to the world he lives in, to the people he knows, to himself. The inductive method can be used equally well for this purpose.

Perhaps teachers, for a period of time, have shied from attempting to help students appreciate the relevance of literature to life because they found themselves conducting amateur group therapy sessions, the literature itself forgotten entirely. But it doesn't *have* to be done that way. Take this haiku by Issa for instance:

Stubborn woodpecker . . .
Still hammering
At twilight
At that single spot

The teacher could ask: "Why does Issa call the woodpecker stubborn? Do people ever behave like the woodpecker? Why?" Such questions don't say: "This is a watchbird watching *you*. Were *you* a woodpecker today?" In other words, such questions don't turn the poem into a moral lesson.

Reading literature as an act of creation, then, asks that the student understand the literal meaning, interpret the symbols, and appreciate the relationship between the literary work and his world.

Eventually both the discovery of relevance and the discovery of symbolic meaning become one with the act of reading the letters. In teaching students to learn how to read literature, we are helping them to create their lives as they become attuned to an already created civilization, enhancing it, pushing back the powers of destruction.

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D. COLLEGE LEVEL

1. Integrating the College Reading Program into Science and Mathematics

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THAT COLLEGE READING and study skills specialists have long been cognizant of the fact that many college students have difficulty in learning science and mathematics is evidenced by the inevitable inclusion of a chapter or two on how to study these courses in every study handbook. After perusing a number of these chapters, however, I suspect that their greatest value is to serve as a magic amulet. Indeed, most study skills manuals seem to function as a good luck charm for a while and then gather dust on the student's desk. They are supposed to bring him good grades. (Behavioral psychologists are now recommending that students condition themselves to concentrate with a "magic charm" of some kind. I maintain that that's the major use of most study improvement books.) Should the student open his manual and explore what is said about studying technical subjects, he would find exhortations like these: read your math problems more than once; recognize how mathematics is useful in the life of every well-informed person; attack math with decision—not emotion; perfect a technique for reading math; key words don't help; understand each formula and its relationship and have a vocabulary of mathematical terms. (Glock, 1954) These may be considered helpful hints by the professor. But more definite directions as to how to accomplish these goals should be given the student who seeks help in this area.

Most of the techniques we have developed for improving reading and study skills are designed for use with literature and the social sciences and may be inappropriate for scientific reading. For example, there is currently considerable controversy over the appropriateness of using the SQ3R Method in reading science. Probably our emphasis reflects a bias on the part of those who work in college reading and study skills since most of us come from non-science backgrounds. There is some empirical evidence to support the contention that we are more effective in helping college students in the more verbal courses than in math and science. Wright (1962) found that students enrolled in a study skills program made significantly higher grades in verbal courses (*i.e.*, English, humanities, and social sciences) than did a control group, but did not differ from the control in their grades in mathematics and science.

Occasionally, science professors have attempted to write handbooks on how to study their subject. These are of varying quality and too often are dull and trite. On the other hand, attempts by reading experts to apply current reading research techniques to reading the sciences seem worse. Recently a particularly horrible example was published in which selections from medical and biological sciences texts were presented and a combined Cloze and matching technique was used. Words were periodically deleted from the text and the reader must search a randomized list of words at the bottom of the page for the word needed to fill the blank. This may lead to slow, labored reading, but there is no evidence that such practice results in improving the reader's comprehension.

Currently, we are experiencing a trend in which experts in different fields contribute chapters to the study skills manual. As an example, recently a lengthy (605 pages), ambitious book appeared titled *The First Years in College* produced, appropriately enough, by the editor of *The Information Please Almanac*. In this work, a professor from each academic discipline that the liberal arts freshman might study wrote an article which attempted to encapsulate the objectives and knowledge of the beginning courses in his field for the perusal of the prospective college freshman. In addition, each writer describes the opportunities, requirements and challenges of his field. Although there are chapters on general study skills, how to take standardized tests, etc., what is unique about this volume is the attempt to present basic concepts from the courses themselves rather than just how to study techniques: *e.g.*, in the mathematics section, the concepts of sets, relations, and functions, among others, are included.

For the past several years, at the University of Maryland, we have been experimenting with a number of different programs aimed at assisting students to adjust to the academic demands of college. Our initial project and a most successful one involved freshman English. The English Department cooperated by giving us a graduate assistant who developed materials to help students improve their composition skills. The success of this program inspired us to forge ahead and make similar attempts in the science and math areas. In one study (Foxe, 1966), chemistry laboratory instructors distributed questionnaires to the 2,000 students enrolled in freshman chemistry. Students were asked whether they would be willing to devote ten hours to improving their study skills in chemistry. Over 760 indicated yes, they would like help. We were then able to pull a random sample from those who expressed a desire to be helped and offer them a brief study skills program. Six hours of meeting were held and students were given techniques for applying SQ3R to their chemistry texts, sample lectures in chemistry to practice note-taking skills, techniques for improving memorization, etc. The analysis of the program revealed that students who completed the six hour program showed significant gains on objective tests in reading and vocabulary; however, the experimental group did not show higher grades in chemistry when their ability scores were equated with the control group. Both experimental and control groups are currently being followed up to see if there is a residual effect on chemistry course grades in subsequent semesters. An interesting finding was that students willing to accept help in improving chemistry skills were significantly lower on mathematical ability as measured by the ACT than were students who felt they did not need help.

Another experimental program which we have tried was a supplement to a graduate course in intermediate statistics. The professor tape-recorded all of his lectures and put them in our reading lab, along with learning programs which the students could use for practice. As this course is regarded as anxiety-producing for those students who do not view themselves as mathematically talented, it is not surprising that the students listened to the tapes repeatedly and used the programs frequently. As a result of this program, significantly more of the students in the class earned A's than had been true in previous groups and the over all performance of the class on the final examination was higher. Further, the instructor was able to cover more concepts than he had with previous classes.

The same instructor has tape-recorded lectures on background information, philosophy, techniques, etc., for a course in individual testing which he is currently offering. Students listen to the tapes and analyze sample test protocols in the reading laboratory. He currently reports that he is able to work entirely with students individually since they now have access to material which normally would have been presented during the class period.

Tape Library. We are building a library of sample lectures from different courses for students to use for note-taking practice. The instructors who have offered to make tapes for us have been most cooperative in checking over our model outlines for accuracy.

Learning Program Library. We maintain a library of learning programs (tutor-texts) and other self-help materials from different courses. We have found that published programs vary greatly in both quality and appropriateness for a given course and therefore have found it essential to get recommendations from the instructors as to materials that would be most relevant in helping students in their courses.

Writing Term Papers and Technical Reports. Another area in which we've been developing methods and materials involves setting up a brief (four hour) program on how to write term papers and technical reports. One of our instructors worked with a psychology professor to set this up. She developed handouts of lists of sources of materials in psychology that students should use, suggestions on style and form as well as general principles for writing a term paper. We view this as a prototype program which can be applied to other subjects by modifying style sheets and reference lists.

Within this field of mathematics, in addition to building a library of learning programs we plan to employ several math teachers this summer to develop programs and evaluate materials in this area. Modern math and its complexities create problems for students. We feel that by employing teachers who are trained in mathematics we can help them develop skills in working with students and analyzing their learning difficulties more readily than we can train reading persons to be experts in mathematics or science. Teachers also have the advantage of being able to communicate with the specific department concerned.

Maintaining close cooperation with the faculty in other disciplines is a necessity for the college reading specialist who wishes to help students in their mathematics and science learning skills. We have found these contacts most helpful and revealing. As an example, although we have found professors in the physical sciences attributing students' difficulties in their courses to poor mathematical backgrounds, we were heartened by this statement made by our head of freshman mathematics: "Much of the difficulty experienced by students in mathematics courses is not really mathematical in nature but rather is due to poor acquaintance with language in general. We use language to communicate ideas. However well expressed the input to the student may be, it is futile if he is unwilling to realize the precision of the words he reads or hears. Vice versa when he expresses himself, either orally or in writing, his careless or disorganized output will not convey his meaning satisfactorily."

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2. Anticipating Problems in Planning a College Reading Center

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THE PROBLEMS IN developing a reading center are many and varied: few appear to present easy solutions; some are interesting; many, discouraging; and most, frustrating. Unless one is geared to accept the problems as inspiring rather than threatening, it would be advisable not to pursue the idea further.

From its conception, through the gestation period, until and after delivery, the growth of a center into adulthood requires diligence, concern, and loving care from its maternal or paternal parents.

Many possibilities could be enumerated as areas deserving discussion, but the ones which would probably apply in most situations are ascertaining the need, developing background, financing, space, materials and equipment, and staffing.

My remarks intentionally will not reflect a review of literature relating to this topic. They are based on personal experience and empirical observation. It is hoped that they represent judgment and common sense for those of you who might consider beginning a reading center at your institutions.

Ascertaining the Need

The first item is ascertaining the need of a center. This paper is predicated on the assumption that it is rather universally accepted that some students approach institutions of higher learning ill-prepared to cope with the study skills and abilities required for academic success. Unfortunately, in my opinion, there are those in academic circles who reject the concept that developing such abilities as reading should be an institutional responsibility. Suffice it to say, then, that certainly *we* recognize the inadequacy of reading ability as a problem.

Developing Background

Granted that we know and recognize that a need does exist to resolve these problems, we must take the initiative in translating this need to others. Obviously, the likelihood of developing a program is contingent upon support of administrative as well as other parties who feel that any proposals could (or maybe should) involve them or their respective departments.

The need can be supported by data collected from entrance or placement examinations unless, of course, students are rejected from entrance because of inadequate reading skills. If examinations are primarily used for placement, the data can be highly significant in supporting the need for a reading center.

From the need, the purpose of a program emerges; and from the purpose or purposes, the function of a center becomes clear. The function must be adapted to the type of student(s) to be served. Are we concerned with the underachiever in reading only, or do we perceive the role of a center as a broader one embracing the accelerated student? If we take the latter approach, we must think in terms of multiple programs such as remediation, developmental, and/or accelerated. Scores on tests can assist us in this decision.

Such judgments, however, must involve other parties, and their inclusion in planning can be the most significant factor in determining whether or not a center becomes a reality. It is sometimes difficult to anticipate those individuals, departments, divisions, or schools who feel that they should be involved in decision and policy making concerning said development. Certainly if an institution has any kind of program at present, voluntary or required, the persons engaged in this effort must be consulted and involved. It would appear that one area which would be interested would be the school, department, or division of education. To suggest that this is the only school which would have an interest is presumptuous and depends solely upon individual differences found within institutions.

Most certainly it would be possible that psychology could be and would want to be involved. I have worked in three different institutions, each one having a different organizational pattern of responsibility for the center. In one case it was education and psychology, in another education only, and in the last, English and education. Although this appears to be inconsistent, in each instance the reading center functioned reasonably well. I would attribute the success primarily to the time and effort expended in laying the proper groundwork.

Consideration must also be given to be sure that agencies outside the college or university framework are not already performing the functions determined. Some institutions feel quite strongly that they should not compete with private enterprise.

Within the college organization what agencies might exist which conceivably would have an interest in a projected center? These could be a psychological clinic, counseling office, admissions office, health center, speech and hearing centers, and many others. Every possibility must be explored not only because of the importance of inter-staff relations, but to make a maximum utilization of all facilities. It should be added that many of these agencies can give impetus to your proposals. Should such agencies exist in the college framework, it is of vital importance that arrangements be flexible to permit cross-referrals.

Once the proper parties have reached a concensus as to the function(s) of a college reading center, one must consider initiating the program. At this point consideration must be given to financing, space requirements, equipment and materials, and staffing. Any one of these problems warrants a paper all its own. Since there will be unique features within each school, it would be rather pointless to attempt to establish a priority for consideration of these items. Each will be briefly discussed as presented.

Financing

Whether or not financing the program(s) is a problem rests essentially upon the posture assumed by the institution itself as consistent with the governing boards. If you are fortunate enough to establish a reading center at an institution committed to the ideal that one of its prime functions is to assist the student in a full development of his potential, then financing should not pose an insurmountable problem. In other cases, it almost becomes a "show me" type of operation; *i.e.*, first one establishes a program by whatever devious means and then he presents his case in the light of supporting data regarding need. This approach is fraught with pitfalls, however; it means that one could have to "bootleg" to achieve a reputable program. There is always the danger, too, that once the program is operating any appeal for the many things needed to extend it to an adequate level falls on deaf ears. In other words, if the program is so good at the present time, why do you need something else? Such an attitude tends to maintain a status quo.

In too few instances, I suspect, do we find situations which support the reading center concept with adequate financing, staffing, or space prior to its actual development. From reports, however, this situation is improving.

Depending upon variables, the center could pay for itself, partially pay for itself, or be totally underwritten by the institution. No one of these arrangements is superior to the others, although the first may be the most difficult. It is strongly recommended that a budget be established at the earliest date, preferably at the planning level.

A corollary to this problem of financing is, of course, whether or not fees should be charged. Since fees would tend to offset or pay for all expenses, how much should be charged? Fees could be considered as a laboratory fee when course credit is given or as a service fee for non-credit instruction.

Space

The proper utilization of space in an institution is of prime consideration to all. In some states formulae for use of space are written into state statutes; others permit more autonomy. The problem of space plagues virtually all institutions.

Quite often a reading center can be solely a labor of love on the part of its founder. His recognition of a job that needs to be done and his willingness to proceed under adverse conditions have resulted in reading centers being housed in janitorial supply rooms across the face of the nation. As a minimum, one is entitled to a tacit understanding that administrative support is well beyond the verbal level. The number of students to be served is the most potent point to be pressed in obtaining space.

I have yet to see the ideal situation. This does not mean that it does not exist, but most directors are the first to admit that they believe their centers lack sufficient space.

Materials and Equipment

Once we have resolved the space problem, we should think in terms of materials and equipment. The personal philosophy of the director, with modifications as dictated by those interested parties, supplies guidelines for the best selection. Determination must be made as to whether one plans to employ a machine, materials, a combination, or some other type of program orientation. This again is tempered by background of the personnel and the purpose(s) of the program(s). So many materials are available for use in a center that it defies the imagination. The only suggestion is rather mundane: be sure that equipment and materials are used to provide maximum effectiveness. It's not the dearth of materials that presents difficulties; it's their misuse.

Staffing

The selection of staff is equal to the problem of the selection of materials and equipment. It appears to be increasingly difficult to find staff with the competencies which one would desire.

In certain cases it might be both feasible and desirable to utilize outstanding masters and/or doctoral candidates as teaching assistants. This would ease some of the pain of full-time staffing and also prove to be a measure of economy. Conceivably one could involve the graduate assistants in external-internship programs of either psychology or education.

Staffing, like the other areas of consideration, can only be determined adequately in light of the nature and the purpose of the program.

One special consideration in the total staffing is that it would be well to think at a very early date of secretarial assistance. Until there is an office manned by secretarial help, there is no firm program. There must be a central clearing agency for supplying information, collecting data, and other tasks.

Locating Students

It is paramount that the best possible means be arranged to enlist students into the program. If the course is required, the feeding is automatically solved; however, this may present other problems which cannot be discussed within the framework of this address. Again, in my personal experience, I have worked under three different patterns, all at state-supported institutions:

1. Minimum Fee. Non-credit. In this instance, the attendance period was for six weeks. The operation was somewhat like free enterprise with the center informing sororities, fraternities, and other campus organizations of the nature and value of the service. On occasion, demonstrations were arranged and given.

2. No fee. Non-credit. The attendance period was for a semester. Students were counseled into the course by faculty advisors. The holding power was dependent upon the interest of students only.

3. No additional fee. Credit given. Full semester attendance was required. Students were permitted to take the reading courses without any additional enrollment charge. On the basis of placement examinations the counseling office recommended that they take the course.

Again, no one approach seems to be more effective than another. It is largely a matter of modification and adjusting to the gestalt of the situation.

Conclusions

In conclusion, it can only be said that the development of a reading center must be tailored to the nature and purpose(s) of the program. Once it has been decided what type of services are to be offered, only then can one approach the many related items of financing, space, materials and equipment, and staff. Multiple programs have multiple needs in each of these areas.

Throughout the birth of a center the labor pains very rarely cease or subside; sometimes forceps are employed, or in some cases a caesarean section is needed. Hopefully, the infant would not be stillborn. At best, planning a reading center could be described as a supreme test of human relations, endurance, and one's frustration tolerance.

NOTABLE READING PROGRAMS

A. PRIMARY LEVEL

1. Project Head Start in Detroit

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As a first step in discussing the relationship of Project Head Start to reading programs in our schools, I feel it is necessary to define several terms. Project Head Start in Detroit is a part-time pre-kindergarten program. Because it is a pre-kindergarten rather than a pre-first grade, the goals of its educational component have much in common with those of a good nursery school. In Detroit we are also offering disadvantaged children an expanding preschool program. The preschool program differs from Head Start in that it is conducted during the school day for the regular ten-month school year and it enrolls children beginning at the age of three. Thus, children may have two full years of enriching experiences previous to their entry into kindergarten. Approximately 6,000 children participated in the Head Start summer 1965 program. Approximately 1,000 children are enrolled in the regular-year preschool.

Goals, objectives, and teaching techniques of the two programs have basic similarities in that a fundamental purpose is compensatory education and help for those children destined on the whole to be least successful in their school life. For convenience I shall use the terms Head Start and preschool interchangeably to cover both Detroit programs.

Most people are familiar with the fact that Head Start attempts to deal with the whole child—his physical, emotional, and intellectual needs. Review of the 6,000 Head Start medical examinations last summer indicated that over 1,000 children needed referral for medical treatment. Over 80 per cent of the children needed dental referral. Several hundred children needed the help of speech teachers. Almost 100 were referred for psychological help. For some children the food given to them in the Head Start program was the only balanced meal they had all day.

The love and concern showered upon our children by the professional and lay staff resulted in some dramatic changes in the emotional behavior of some children. We are convinced that many hidden changes in positive ego development were brought about by the dedicated adult personnel of the centers. These children approach school with a strengthened and broadened self concept which will in turn foster future success instead of failure.

Each of the basic components of the Head Start program warrants extended discussion. For those who are interested in an overview of our program, may I refer you to the February 1966 issue of *The Reading Teacher.* I would like to concentrate my remarks in the area of the language experiences and communication skill development offered in the program. These experiences, we believe, form the foundation upon which reading development is based.

In our work with young children, and I believe the research will support us, we have placed heavy emphasis on concrete experiences rather than on abstract learning. In dealing with concrete experiences it is necessary to bring as many senses into play as possible. This multi-sensory approach calls upon hearing, seeing, feeling, tasting, and smelling. When possible, two or more of these senses should be used simultaneously, thus affording strong reinforcement and emphasis.

A typical day's program at a preschool center should involve a balanced program of structured or directed activity and unstructured or spontaneous experiences. Achieving this balance is not an easy task. It is important to emphasize strongly that much planning must be done to insure that an educational pattern emerges from the preschool experiences offered. This time is not a babysitting situation. We are concerned that preschool experiences lead to later success in reading. Therefore, heavy emphasis must be directed toward oral language development. Individual preschools must study the needs of their children and plan to meet them. A stereotyped program determined by a central office cannot take the place of the considered professional judgment of the local preschool staff. If the goals of the program are kept in mind during the planning session, classroom activities can be structured to contribute to their attainment.

It is not my intention to present a teachers' guide of preschool activities in this brief presentation. My intent is to urge consideration of the idea that language facility for most, if not all, of our disadvantaged children will not develop and improve to the degree required for school success without the intervention of the teacher in daily programs. It is clear that visual and auditory skills are extremely important to success in reading. Therefore, it is necessary that well planned lessons which contribute to the growth of these skills be a part of the daily program.

Many kinds of material such as songs, poems, stories, etc., offer an opportunity to develop listening skills. Peg boards, matching games, and picture story sequence activities develop eye discrimination. Role playing and the use of puppets help shy children express themselves more fluently.

Effectiveness of these lessons is increased when they are offered to small groups of children rather than to the class as a whole. In Detroit, assistant teachers or aides are provided for each classroom. The class may be divided into sub-groups with the teacher and aides sharing responsibilities for the language period. If the teacher wishes to handle this important assignment personally, the aide may guide one group in unstructured activities while the teacher works with the other.

Certain basic guidelines may help the teacher as she plans these lessons. First, it is important that the activities chosen have interest value to the children. The teacher needs to be sensitive to the interests of the children in her class and also able to recognize that these interests change frequently as the children mature.

Second, care must be taken to match the development and maturity of the children to the task. If a child develops feelings of failure because he is pushed too hard to do what he is incapable of doing, he has not failed; we have failed him. Of course, the implication here is that the teacher must be knowledgeable in the area of child development generally *and* must be observant of the characteristics of her children in particular.

Third, it is necessary to know the goals to be accomplished and to maintain records of pupil activity and behavior sufficiently detailed to indicate whether they are being achieved.

Fourth, be realistic in terms of the attention span of the children. Normally, a ten to fifteen minute experience is suggested. Even this short time span may have to be adjusted in order to promote a successful lesson.

A necessary part of the development of communication skills is the provision of a wide range of experiences which stimulate and foster communication. Shared experiences provide a sound basis for natural interaction between children. I am sure that as adults we have on occasion been placed in a position where we were expected to converse with another adult with whom we had nothing in common. When the silence became psychologically and physically unbearable, we resorted to trite comments about the weather or the furnishings in the room. On the other hand, in other circumstances and on the basis of many common interests we have had the conversation grow animated with the flow of ideas.

In the Detroit plan, children take many trips, walking and bussed, to broaden and enrich their background and to facilitate interpupil discussion. I am reminded of one class which took part in a trip to a creamery. Pre-trip activities were designed to stimulate the curiosity of the children as to what they would see, plus study and discussion of materials which would provide information to make the trip meaningful. Upon return to the classroom, the children made butter with each child participating in some way. Of course, the ultimate step was to spread their butter on some crackers and eat it. The natural spontaneous communication which resulted from this activity was encouraging to see. It could be unforced and spontaneous because the spark of a shared experience promoted it. All the children took at least one trip per week with the most popular places being the children's zoo where they could touch and feed the animals, local parks, fire stations, farms, bakeries, and walking trips to observe their neighborhood. The variety of post-trip experiences which contribute to language development in a positive way is unlimited.

It might be wise to note that many parents accompanied the classes on their trips and participated in pre- and post-trip activities. We hopefully sought to produce a ripple effect through this parent involvement which would contribute to strengthening and reinforcing the school's goals within the framework of the home. The kind of involvement of parents also gave the school an opportunity to make parents aware of what the school was trying to do in increasing the communication skills of the students. The need for this parent orientation became apparent after we heard from some parents that their children were talking too much at home and were asking too many questions. This change in behavior on the part of the child can be threatening to a relatively non-verbal parent or in a basically non-verbal home. We must make a special effort to foster understanding by parents of the relationship between growth in communication skills now and future school success. Children should not be torn apart by incompatible demands at home and school.

Let me add another caution as we set about to deliberately organize language experiences for our preschool children. It is the children who need the practice in communicating ideas and thoughts, not the teacher. We teachers suffer from a common affliction; we love the sound of our own voices. We feel we are really working and earning our money when we are talking *to* children. Let those who need the practice do the talking. Let us talk *with* children not *to* them. Let us be willing to be silent and give the children extended opportunities to talk.

Another technique which we are presently exploring in our preschool project is the use of a polaroid camera in developing opportunities for oral expression. The teacher takes pictures on trips and they are immediately available for lesson use while the experience is still fresh in the minds of the children. Many uses may be made of these pictures from simple verbal reconstructions of experience based upon a picture to rather advanced use to teach story or action sequence. Imaginative teachers can certainly find varied ways to use this tool.

Preschool programs hold great potential for giving American education of disadvantaged children an energizing shot in the arm. The road is not easy, but the rewards are great.

2. Developing Reading and Related Skills in the U.S.A. and the U.K.

JOYCE M. MORRIS
United Kingdom Reading Association

IN THE U.S.A. and the U.K., all concerned with the educational welfare of children have the same fundamental task of ensuring that they learn to speak, read, and write English as effectively as possible. This unity creates a special bond between them, and a platform both for the discussion of common problems and the exchange of ideas.

Let us start by considering five of the problems we share.

Common Problems

1. *Irregularity of English spelling*

Over the years, diacritical marks, colored letters, and so on have been used in British and American basal readers to ease the difficulties which the irregularity of English spelling presents to beginners. A more radical solution in the form of new alphabets has also been tried. At present, the one receiving most attention is Pitman's initial teaching alphabet. Experiments with it began in the U.K. in 1961, and it is estimated that by the end of this year children in about 15 per cent of the schools will be learning to read and write through this medium. (Recently, the Queen's second son was reported to be doing so.)

To date, objective and subjective assessments suggest that i.t.a. is, on the whole, effective, but the majority of British teachers seem to be playing the game of "Let's Wait and See" until results of longer-term studies are published. In this country, where i.t.a. was more recently introduced, there appears to be similar enthusiasm on the part of the minority using it and a cautious attitude among others.

2. *Bilingualism*

The problem of bilingualism differs in degree and kind in the four countries of the U.K. In Wales and, to a lesser extent, in Scotland and Northern Ireland the continued use of Welsh, Scottish, and Irish Gaelic, respectively, has helped to preserve national identity. Since schools have long had the responsibility for enabling a proportion of the native child population to become bilingual and some research into their difficulties has been carried out, considerable proficiency in handling this situation has developed.

In comparison, the present situation regarding immigrant children is a cause for grave concern. Because of a recent influx of children from such countries as India and Pakistan, immigrant pupils outnumber the native-born in some state schools, particularly those in the poorer parts of English cities. Consequently, there is an unprecedented demand in England for courses in teaching English as a second language and for assistance in dealing with the complications of biculturism.

Immigrant children in some schools are being taught in special classes until the children have a reasonable command of English, and various other experiments and inquiries are in progress. Because, in terms of increased size alone, the problem is relatively new, nothing like the scale of experimentation and inquiry in the U.S.A. has so far been attempted.

3. *Dialects*

English is the first language for the majority of children in the U.K., but it is spoken in numerous dialects and accents. In some regions, the teaching of phonics is made easier by a closer relationship between the way particular words are pronounced and spelled. For instance, a Yorkshire-born child says path, and a Cockney says this word as if it had an "r" in the middle.

Different speech patterns provide a source of entertainment and are generally considered to enrich the social scene in Britain. Consequently, although they create difficulties in communication and tend to preserve social-class distinctions, there are no government-backed schemes to make all children speak "Standard English." Teachers in state schools usually leave local dialects alone and concentrate mainly on clarity of speech and fluency in expression. However, they encourage English-speaking immigrants, especially those from the West Indies, to alter their speech habits.

On the whole, Negro pupils in the U.K. do not resist attempts to change their modes of speech, probably because all schools are integrated and there is more incentive to conform than to do otherwise. In the U.S.A., the situation is rather different and perhaps it explains why teachers in large, urban school systems are not trying to erase the "down home" accents of Negroes but are teaching standard English as a second language for eventual use in job interviews, etc.

Speech differences can not only act as social and class irritants but also may cause difficulties in learning to read and write. It is reasonable to suppose, therefore, that current federal support for a concentrated attack on them will help to solve literacy as well as social problems.

4. *Disadvantaged children*

Literacy problems on both sides of the Atlantic are closely associated with children from homes of low socio-economic status. This fact is not surprising because their home circumstances give them a poor start towards the goal of literacy and not much encouragement to succeed in achieving it.

Because the U.K. is a welfare state, there is not so much need for a War on Poverty program in the material sense, but in terms of cultural and emotional deprivation there is need for it. At present, the state provides nursery schooling for about one per cent of the under fives. Thus, although most of them are from disadvantaged homes, they represent only a small fraction of the child population with a similar background.

At the nursery stage, children engage in activities leading to fluency in the use of language such as listening to stories, relating news, reciting rhymes, singing, and so on. Their classrooms offer scope for imaginative and creative play with bricks, water, sand, clay, and dressing up materials, opportunities which not only enrich their vocabularies but enable them to mature as persons. Nursery children are not generally given formal instruction in reading and writing, but they are given plenty of opportunities to look at simple books and to draw and paint.

Five-year-olds of working-class parentage usually spend their first weeks of compulsory schooling in readiness activities similar to those in nursery classes. However, in rural schools, particularly those in the remoter areas of Wales, Scotland, and Northern Ireland, it is more common to find teachers beginning formal reading instruction with new entrants.

There was a time when it might be said that one of the distinctive features of the British educational system was the provision made for the under-sixes and its special benefits for the disadvantaged child. Now, proportionately more children here are receiving nursery schooling, and about three quarters of school systems have kindergarten programs.

It is good to observe how underprivileged American youngsters are being given greater opportunities to develop the foundation skills of reading and writing through such projects as Operation Headstart. It is also interesting to note how practices which have long prevailed in British nursery and infant schools are being developed here into a more systematic attack on their problems. However, these developments make it even more disturbing if the compulsory age for starting school in the U.K. is changed from five to six.

This revolutionary change is now being considered by a Government Committee. It is one answer to the question of how, in view of an acute shortage of qualified teachers, to reduce the size of classes and still raise the school-leaving age to sixteen.

5. *Shortage of trained teachers*

The U.K. needs not only thousands of more qualified teachers but, I venture to suggest from findings of N.F.E.R. inquiries *(5)*, a much greater number of teachers trained to teach reading and related skills. Pre-service courses cover so many subjects that usually not nearly enough training for this task is given. Moreover, for less dedicated teachers, a greater incentive to take in-service courses is required as well as more courses in some areas.

Before federal aid for reading workshops, etc., was granted, there is some evidence, in such reports as *The Torch Lighters (1)* and *The First R (2)*, that the situation here was similar. Obviously, it will eventually become very different because of the remedial measures taken.

Other Similarities and Differences

1. *Freedom given to teachers*

Traditionally, British teachers are free to choose the methods and materials they consider best to meet their pupils' needs. They are given suggestions by the school head (who, invariably, has had teaching experience) and by inspectors. Some local education authorities issue brief guides and recommended book lists. Government publications also appear occasionally. However, teachers, provided they are judged reasonably competent, may ignore advice from these sources.

Freedom naturally produces variety in educational practice, and, even in one school, long observation is usually necessary to obtain a clear picture of how pupils are taught to read and write. There are many variations in this country, too, but teachers in a particular school system tend to follow the detailed programs suggested for developing the language arts. It is possible, therefore, to identify an area program here and not in the U.K.

2. *Methods*

The phonic/whole-word controversy heightened in intensity here with the publication of *Why Johnny Can't Read*

(4) and soon afterwards in the U.K. when Daniels and Diack *(3)* reported results of an experiment with their phonic-word method. Since then increasing attention has been focussed on word-attack skills, earlier formal instruction for beginners, and systematic progression.

3. *Materials*

These trends are reflected in reading materials published during the last decade. In the U.K., basal systems which provided comparatively little practice in word-attack have generally been replaced or augmented by a specific program to develop independence. (The popular *Janet and John* series, published by Nisbet, is a case in point.) More programs for teaching phonics separately are also available.

Opposition to beginning formal instruction early is still strong, but the fact that i.t.a. and *Words in Color* (Educational Explorers) have been introduced indicates a change in opinion. Similarly, the concept of systematic progression has gained wider acceptance insofar as experiments with McGraw-Hill's *Programmed Reading* course and the *Rank Reading Master* are in progress.

Ideas arising from research and practical experience are quickly translated into materials in the U.S.A., and a number of them are subsequently adapted for the British market. In the resulting profusion, the trends I mentioned are exemplified over and over again. However, apart from the fact that American reading materials are generally more lavishly produced, they differ from home-produced British materials in ways which illustrate other broad differences. For example

(a) U.S.A.

Basal reading systems are usually edited by a team of language arts specialists.

U.K.

Generally, authors of basal systems are teachers and only one or two are involved. (There are comparatively few opportunities to specialize in the language arts.)

(b) U.S.A.

A detailed teacher's manual accompanies each basal reader and usually other parts of the program also.

U.K.

There is either one comparatively inexpensive manual for the whole program, a free guide, or no guide at all. (Manual consultation is not standard practice. This procedure is associated with the freedom given to teachers.)

(c) U.S.A.

Systems generally include reading readiness, attainment, and diagnostic tests.

U.K.

Tests are not usually included in programs. (The under-sevens are rarely tested. Normally, older pupils only take attainment tests supplied by local education authorities. Few teachers use tests for diagnostic purposes.)

(d) U.S.A.

Basal readers are supported by a supply of workbooks, apparatus, and teaching aids.

U.K.

Additional materials are available. (Most primary school budgets do not permit purchasing these in great quantity. In any case, many infant teachers prefer to make their own.)

Recently, basal systems have been published on both sides of the Atlantic which in vocabulary, content, and pictorial illustration are more appropriate for urban, working-class children than those which were previously available. However, no multi-ethnic readers for immigrant pupils and their classmates have yet been produced in the U.K.

As in this country, almost all primary school pupils have the use of a class library and only a small proportion can browse in a school library. Contrastingly, practice materials like *My Weekly Reader* are delivered to many elementary schools here, but to no British schools so far.

Proportionately fewer primary schools in the U.K. have expensive equipment such as projectors, tape recorders, and reading machines. However, the number with television sets is steadily increasing and, last year, the B.B.C. began transmitting programs for backward readers aged seven to nine.

It is appropriate to discuss materials

last for these most clearly illustrate the similarities and differences between the U.S.A. and the U.K. when it comes to developing reading and related skills. The similarities arise from common problems and objectives; the differences from disparate financial resources and attitudes. This country has the resources to provide an abundance of materials and to support research which leads to their development and to an increase in the number of educators with special knowledge of the language arts. In the U.K., plenty of comparatively inexpensive materials are available; there is little money for research and, consequently, few specialists. Moreover, specialization in this field and the establishment of reading centers are not encouraged by some prominent educationists who consider that reading and related skills should remain under the "umbrella of child development." Perhaps they will reconsider it if the goal of a fully-literate adult society is reached sooner in the U.S.A. than in the U.K.

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B. UPPER ELEMENTARY LEVEL

1. Some Promising Innovations in Reading

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1. The Watts Method of Teaching Reading

LAST SUMMER, a letter addressed to James E. Allen, Jr., Commissioner of Education, was forwarded to me with a check mark before the word *Reply*. This letter was from a young man, a teacher of a special class; he had evolved a program for the teaching of reading that would teach "all" children, youth, and adults to read. He wrote

> The times, I think, demand some revolutionary innovations in many areas of public school instruction. The children . . . need an effective method of learning to read English. The ability to read English is the key to worthwhile achievement in American schools.

Walter Watts outlined the significant features of his method:

1. The method of instruction is easily learned.
2. The cost of instructional materials is low.
3. Anyone with average (or near-average) intelligence will be able to read adult-level English within nine months.
4. The method has built in features that cater to the feelings, desires, and quirks of drop-outs, culturally deprived children, and slow learners.
5. After absence of any length, the course can be satisfactorily continued.

The memo said *Reply*. How could one reply intelligently regarding something you did not know—how could you give advice? There appeared one route to action. Go, *go* to see this innovation.

Teaching Reading to the Disadvantaged.

I first visited Mr. Watts' class in October.[1] Seven or eight girls and boys were seated around a long table. Mr. Watts moved around the group. The students took turns in reading duplicated material. At the conclusion of a number of lines, the teacher gave a brief test: he pronounced syllables and the students wrote (spelled) them. Correction was immediate, and the same procedure for each group of lines was used.

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[1] The writer is indebted to Walter Watts for his many courtesies during her visits and the material re his plan.

Dull? These youngsters (12's, 13's, 14's or older) did not think so—*they were learning to read.* They were rewarded (their learnings were reinforced) each time they were tested.

Recently I returned to visit the classes. This time the table group was just completing some work sheets—programed reading on the subject of astronomy. The material contains 50 questions requiring meanings for and recognition of such words as universe, solar, galaxy, earth, center, and planet. I asked for and received the papers. Errors? Yes, a few—but remember the students correct their errors. *The results are fantastic!*

When one group had completed the test, they returned to writing their TV script, *Batman.* The students write for Mr. Watts, and Mr. Watts writes for them.

Mr. Watts and I were in and out of the reading room several times. Always when we returned, the students were busily employed. One group was working with a list of words they had discovered containing the letters *b-e-l.*

From the list that the boys had volunteered to spell, I copied five words: *bellows, belly, belong, below,* and *belt.* Class members were also learning to spell the names of the states and words in the new math.

Mr. Watts said, "You see it works; children teach and *bolster* each other. New? No, it's old
as the sun,
—the moon,
—the stars,
but it works!"

Reading Is More Than Words.

As a teacher of special education Mr. Watts was appalled at the number of children who could not read or could read today but not tomorrow. He emphasizes that reading does not succeed with five minutes of that, two minutes of this, and three minutes of something else. Before the school year is over his students will have completed about 35,000 spelling exercises; that is, they will have read and spelled about 35,000 letter combinations, letter combinations that have systematically progressed from the reading of syllables to functional English words. The method, however, is more than the phonetic analysis of words and letter combinations. The students are instructed in sentence structure, word comprehension, functional English expressions, and the oral reading of dialog and narration.

Mr. Watts' associate faculty members have only the most heart-warming praise for the students who enter their regular classes from these groups. One memo from another instructor reached his desk the day I was there. I asked for permission to copy it.

Benjamin's grade was recorded as *B.* Also written on the memo was:

> Ben gave me the list of the Service Squad members today and informed me that he had been appointed captain. You deserve a lot of credit for the development of the boy, and I know you will be happy about his promotion.

By the close of the next school year, it is hoped that this promising innovation will be available to all persons who want to teach the academically retarded to read.

2. The Writing Road to Reading

The Writing Road to Reading (2), a text, is a guide to an innovation gaining some popularity in New York. The author, Romalda Spaulding, states in the introduction: ". . . and though the method was designed especially for use in the elementary schools, beginning with the first grade, it has proved to be fully successful in high school classrooms and in private schools from pre-school through college age . . . it is a method for teaching the *basic* techniques of the language—accurate speaking, spelling, writing, and reading as one integrated subject."

The Writing Road to Reading is to be used to help a child attain certain tools in reading before he begins to read. In the intermediate grades the programs will help older children to sharpen their auditory and visual acuity. One teacher with forty-five years of teaching experience has taught the writing road to reading the past three years. She reports the method as "Marvelous—it gives the children a sense of power."

3. Summer School at Oceanside

Somewhat too frequently, summer school programs are for remedial work only; hence, it was a pleasure to discover an excitingly different language arts program at Oceanside, New York. Everyone in this program was enthusiastic—the principal, the instructors, and all the children.

The area of interest for summer school was language arts. Five strands were chosen with which to work: (1) dramatics; (2) choral speaking, public speaking, and debating; (3) reading and reporting; (4) creative writing; and (5) newspapers and magazines.

Each teacher had been selected for his special interest in the strand taught; hence, the organization was departmentalized. Each week's work was called a workshop, and each Monday the students staged "A Studio Presentation" in the auditorium. The Studio Presentation was whatever the members of each workshop chose to present.

The length of the summer school day was from 9 a.m. to 11:30 a.m., with recess period midway in the morning. Roughly, each day included as much time as was usually devoted to the subject during a school week.

The five class groups of children rotated weekly during the summer school so that each group received instruction in each workshop strand.

The children had been selected for the workshops on the basis of their interests in the strands, their accomplishment (reported by teachers and principals), and their ability to learn.

Strand I: *Dramatics*

The week's work in dramatics was designed to initiate the children in the area of expression. The assumption was that all children are born actors and love to perform. It was taken for granted that children look upon first experiences requiring them to appear before a large audience as both frightening and rewarding.

Pantomime and charade activities were employed during the first day of the week's activities. The second day was ad-lib. Two or three children were chosen at one time to discover something unusual about one another—perhaps an untied shoe lace, dirty fingernails, or a "loud" shirt. Then, in impromptu fashion this peculiarity was enacted.

The third day was to teach stage presence. On the fourth day some small production was prepared for the Studio Presentation.

Strand II: *Choral Speaking, Public Speaking and Debating*

The major emphasis in this strand was placed on choral speaking. The children learned to evaluate and use the full-range of their speaking voices.

After the evaluation of voices, the initial work of choral speaking was begun. Next, attention was turned to great speeches of history.

For the final phase short debates were held. While their duration was not very long, the structure of formal debating was adhered to as closely as possible.

Throughout this program, the major emphasis was on helping children to develop an understanding of how to use and project their voices.

Strand III: *Reading and Reporting*

The aim of reading and reporting was one of guiding children to realize more of man's potential. The goal was to help the readers become more sensitive to themselves and others and to sense the subtle causes for human behavior as well as to judge the effects. Since humor seems to be noticeably lacking in leisure reading, materials in this area were also included.

To improve the scope of reading, the program was divided into weekly topics. On the first day of each week, the week's topic was chosen and discussed. Then the group was divided into committees to work in the library in selecting blocks of books necessary for the project decided upon. Next the project was worked on and presented in the Studio Presentation.

Strand IV: *Creative Writing*

Something other than the usual paragraph writing was developed in the creative writing program. First, a feeling for creative expression was fostered through the teacher's reading selections from various anthologies. Rhythm and rhyme in poetry were used to get the feeling of meter and beat. Poetry was composed to music: measures were tapped out as the verses were created.

Later other forms of poetry were introduced including the five-line Cinquain and the seventeen-syllable Haiku. Examples of a form were read and enjoyed before trying to create original verses.

Strand V: *Newspapers and Magazines*

Samples of different newspapers and magazines were displayed. Those read in the homes were discussed. Papers were analyzed as to style, contents, advertising, circulation, and other related factors. Reports were made on the history of newspapers, magazines, and the printing press. The class visited the Long Island Press in Jamaica, New York. Opportunities available in the newspaper field were discussed.

The class was divided into small groups to set up various departments—stories, feature articles, editorials, art, advertisements, jokes, and puzzles. All groups submitted their work to the class editors who selected and edited material to be used. After the material was reviewed by the teacher, it was sent to the office to be typed and run off on the ditto machine.

Five papers, usually four sheets, were published during the five-week session which paralleled the weekly theme of the reading and reporting strand. With appropriate illustrations, the following went to press: *Colonial Gossip, A Look Around the World, Spotlight on Sports, Nature News,* and *Nonsense Unanimous.* A reader is quite startled to read in *Colonial Gossip,* "Stop Obeying Washington!" It is well to remember that the week's issue is *Nonsense Unanimous* when you read the advertisement: "Broken baseball bats! Half price for half a bat. Hurry, hurry! Just $2.59 at JOE'S SPORTS BARN."

At the conclusion of the five-week workshops, the groups held a festival and presented selected parts of their summer accomplishments to parents and friends.

The Oceanside Summer Workshop highlights strands of a language arts program that could profitably be included in the school-year curriculum.

Summary

I have reported three successful innovations in reading. Innovation is change. The forward-looking educator does not change for change's sake, but rather he experiments and selects the innovation that he can adapt or adopt to meet his present needs.

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2. Conquest and Exploration: A Reading-Language Program for Grades Four to Six

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THE CLOSE relationship among the language arts—listening, speaking, reading, and writing—has been verified by research and supported by classroom observation. Verbally proficient children tend to be high in reading ability. Children who are low in general language ability tend to experience difficulties in reading. The evidence that language competence is the single most important factor in reading success is overwhelming. It would appear, therefore, that an integrated language program is the key to better reading.

One such program is being developed in the Junior Division of the Scarborough Public Schools. The nature of the program has been strongly influenced by the success the language-experience approach used in teaching reading in the primary grades. Both programs are based on the same guiding principles:

1. *Exploration.* The children have opportunities to select a variety of language activities through which they may explore interesting words, ideas, and organizations.
2. *Guidance.* Teachers help the children select those activities which are most

likely to help them gain insights into their own abilities and limitations.

3. *Enrichment.* The children are encouraged to develop their tastes and creative powers through opportunities to express their ideas in group discussion, prose, poetry, dramatics, and other forms of creative response.
4. *Individualization.* Each child is viewed in the light of his own particular aptitudes, interests, and needs. The program is designed to help each child realize his potential.
5. *Flexibility.* The program provides, within a clearly-defined general program, different learning experiences for different children at different levels of development.
6. *Articulation.* The people concerned with each child over a period of several years have opportunities to share their knowledge about his apparent levels of language development and the ways in which he appears to learn most effectively.
7. *Evaluation.* Evaluation is made on the basis of individual growth, rather than on arbitrarily determined grade standards. In both the primary language-experience and junior reading-language programs the sequence of activities begins with a common experience. In the early elementary grades this may be an excursion, a film, filmstrip or recording, a classroom project, or a story told or read by the teacher. But as the children become increasingly independent in reading, the reading selections themselves provide common experiences around which language competencies can be developed. Many classroom programs in grades four, five, and six use the reading selections as focal points for a wide range of oral and written language activities.

The following sequence of reading-language experiences tends to be the one most commonly used by our classroom teachers:

1. The children read the selection to find out what the author is saying and how he says it.
2. The children discuss the author's ideas and method of presentation and relate these ideas to their own personal experiences. Attention is given to vocabulary development and training in reading-thinking skills.
3. Each child has an opportunity to respond individually to the ideas he has acquired during the reading of the selection and the group discussion. These responses may take the form of a creative activity, research project, or other related reading.
4. The children share their responses with one another. Evaluation criteria are established and the next sequence of reading-language experiences is planned.

Because of the emphasis the program places on individualization and group instruction, it seems preferable to have the children working in groups, each group reading a different selection and participating in somewhat different language activities. In some instances the teacher has followed through a sequence of experiences with an entire class in order to establish basic communication procedures and classroom routines. Other teachers have found that two groups can be handled quite effectively during the introductory period of the program. The second group usually operates about one step behind the first in the reading-language sequence. Once the general procedures have been established the classes are divided into three or four groups. The teachers seem to feel the program is most effective when the groups are limited to from six to ten members. As one teacher observed, "It is much easier to work with a group of eight children than with thirty."

Almost any type of literature can be used in the reading-language program: stories from the basal readers, novels, newspaper and magazine articles, and materials from social studies and science textbooks. In selecting the materials, the interests of the pupils and their levels of reading competencies must be kept in mind so that the effort involved in reading the materials does not interfere with the children's interest and enjoyment.

Discovering Ideas

The reading of the selection is guided by a few carefully prepared questions. Some of these questions may be formulated by the children themselves during the introductory discussion. Others are prepared by the teacher, who has the added advantage of having read the material ahead of time. She will know, for example, what elements of the setting, character, and plot are essential to the organization of a story and can focus attention on these through her questioning. If difficulty is anticipated with particular words or concepts basic to the understanding of the selection, attention is given to these before the reading begins. Should the teacher wish to draw attention to a few interesting words which are going to be used in the discussion period, these words can be included in the questions and underlined. A line under a word is a signal to the child that the word is going to receive special attention. If he is not familiar with the word, he is expected to locate its meanings in a dictionary and select the appropriate one for the context in which it is used.

Once the selection has been introduced, it is usually a good practice for the teacher to "get out of the road" and let the children explore the material on their own. Whether it is story-type or informational material, the theme can be interrupted, the train of thought disturbed by the teacher's breaking in every page or so like a television commercial. Not all the children will interpret the selection in the same way. What ideas they get from it will depend upon their previous experiences. A variety of responses can be expected from the members of any one group. This individualization, of course, adds interest and vitality to the discussion period.

Collecting, Organizing, and Sharing Ideas

After the children have read the selection, they have opportunities of sharing their ideas with one another—of examining, revising, and refining them through group discussions. Preparation is the key to good discussion; and as the program develops the children come to realize the importance of making jot-notes, page and paragraph references, outlines, and summary statements which will help them recall what they want to say during the discussion. In the early stages of the program most discussion questions are formulated by the teachers, but as the children learn the art of constructing good discussion questions, more of these are prepared by them.

Questions which seem to stimulate the most interesting discussions include:

What kind of person does . . . seem to be?

What do you think of . . .?

How might the story have been changed if . . .?

If you had been in that situation how would you have handled the problem?

Do you agree with the author's point of view?

Why do you suppose the author chose to make his point in this manner?

The quality of the discussions improves as the children learn effective ways of introducing, presenting, and summarizing their ideas and develop their abilities to listen actively and use appropriate evaluation procedures.

During this step of the reading-language sequence, attention is given to helping the children develop better thinking skills. After one group of children had read a legend about the migrations of the Canada goose, they were asked to collect all the factual information about the bird presented in the selection. The teacher then helped them organize the information into outline form. The outline was then used by several children in turn as the basis for oral summaries. This activity not only gave the girls and boys experience in preparing outlines and summaries but also provided practice in distinguishing between fact and fantasy, identifying main ideas and supporting details, and seeing relationships among main ideas and supporting details. Other reading-thinking skills are developed in similar ways. The emphasis is on the *process*, rather than on the product.

At each step of the reading-language sequence attention is given to helping the children broaden their vocabularies. One procedure which has proved effective capitalizes on the interest girls and boys seem to have in making collections and at the same time helps them develop an appreciation of the writer's skill. In one selection, for example, an author used several especially vivid words and phrases to describe a storm at sea. The children were helped to collect these words and phrases and classify them according to the particular sense to which they appealed. The collection was supplemented by ideas from other sources and used by the children as a starting point for creating new organizations on related themes.

Over a period of several weeks each group makes a number of collections. Those of concern to the group as a whole may be printed on charts and displayed for ready reference. Examples of this type of collection are words used to describe personality traits (resourceful, determined, gullible), emotional reactions (heartened, depressed, encouraged), and physical appearance (robust, puny, delicate). These lists, which are developed as the children discuss the characters in one story, provide labels which can be used in describing characters in other stories. In addition to the group collections, each child is encouraged to build his own personal thesaurus of interesting words and phrases in his reading notebook. Many opportunities are provided for the children to use their words in oral and written language.

Responding to Ideas

Children may respond in many ways to the ideas explored in the reading-language sequence. A careful examination of the reading selection itself will suggest several worthwhile activities. Some descriptive story-type materials almost demand interpretation in art, music, or creative movement. Informational materials are likely to promote research and further study. Both types of materials can be used to inspire a wide variety of written language experiences.

While reading a story about a group of barnyard animals who migrated to Florida, the children in a grade-four class received the following list of suggestions. Each child was asked to select one activity and explore its possibilities. Those children who had ideas which they felt were better than those listed were encouraged to "try them to see what happens."

1. When a person travels south for the winter, he usually takes a suitcase full of many things. Suppose you were one of the animals in the story. Prepare a list of the things you might take with you.
2. We are told that after many adventures, some pleasant and some unpleasant, the animals arrived in Florida. Make up a story about one of the adventures.
3. Pretend you are a newscaster on television. Write the report of the animals' arrival in Florida as it might be presented during your evening news broadcast. If you wish, include a commercial as part of the program.
4. If you were to meet the animals on their way south, you would likely have many questions to ask them. Organize a list of questions you might like to ask one of the animals.
5. According to the story, the animals journeyed to Florida on foot. Trace on a map a suitable route for them to follow and be prepared to explain it to the other members of your group. It will be helpful if you are able to point out the larger cities through which the animals might pass.
6. The author tells us that as the animals travelled south they made up songs to sing. One of the songs has been included in the story. Compose another verse for the song. Better still, make up an original animal-travelling song.

An examination of the suggested activities reveals that each response requires a different type of organization. The first activity calls for a list. Lists are often prepared as aids in recalling details. Children can be helped to note that when the related items on a list are organized in groups they are easier to recall. The second activity requires the author to organize story elements into a sequential order. If the story is to be told to the other members of the group, a child may record only the main ideas and use this to guide his presentation. If the story is to be read to the group or if the children are going to read the story to themselves later on, a much more detailed organization is necessary.

The organization of a news report is quite different from that of a short story. In a news report the author generally presents a collection of main ideas first and elaborates on each later on. Commercials tend to be presented in a great variety of organizations but to be less direct than news reports in their presentation of facts. Factual information can be organized on a map. It may also be organized into diagrams, pictures, charts, tables, and graphs. Poetry may be presented in an almost unlimited number of organizational patterns, but each pattern is carefully structured.

If children are to acquire competency in written language, it is essential that they explore different organizations and learn how to select those organizations most appropriate for their purposes and how to use each one effectively.

Presenting, Evaluating, and Planning

This final step in the reading-language sequence may well be the most important. Each child has selected an activity of special interest to him; he has experimented with new words and ideas; he has received what guidance he needed from his teacher; and now he is ready to share his creation with the group.

If it is true that what teachers expect of children influences what they produce, then what should we look for in his presentation? Correct grammar, spelling, and punctuation? Good sentence structure? Continuity in plot or character development? Perhaps. These are important editorial skills, essential factors in written communication. But if we wish to promote exciting creative responses, perhaps we should be much more alert to signs that the child is developing a sensitivity to language, that he has a growing awareness of what words are and what he can make them do for him.

Children's writing can be intensely personal. If the program is sufficiently open and if the children feel free to explore, to experiment, to try things out, we soon see in their writing those glimpses of reality, those flashes of insight which children have about themselves and their world. Through the ways in which he responds to his experiences, each child reveals something about his individual giftedness.

A poem displayed on a bulletin board, a report recorded on tape, a diagram photographed for a slide collection, a story duplicated and used as a reading selection, or a word of genuine praise, does more to promote imaginative writing than all the red pencils in the world. A comment such as, "Good! Let's publish it!" implies to the child that his work has real merit and that, after it has been edited, it will be typed out and made available for everyone to read.

The children should be involved in the evaluation session. Questions such as, "What did you like best about . . .?" "What interesting words and phrases did you notice?" "How might . . . improve his work?" guide the discussion and help the children to be more constructive in their comments.

If a child has attempted to use a particularly interesting organization, a checklist might be developed with the group to help the children notice the specific characteristics of the organization. In addition to providing a reference for evaluating one kind of response, such a checklist may alert the children to the fact that such an organization exists. It frequently happens that once an organization has been drawn to their attention in this way, children experiment with it when they respond to the ideas presented in the next reading-language sequence.

The need for both short-term and long-term planning in the program is obvious. Attention must be given to locating suitable materials, identifying the reading-thinking skills which can be developed through each selection, noting the specific reading, discussion, and writing skills with which individuals seem to need help, and organizing the program so that the children have opportunities to use the skills they are being taught.

It should be emphasized that the reading-language sequence described here is only one aspect of the total classroom reading program. It must be complemented by a program in which each child is encouraged to broaden his background of experience through reading widely in both fictional and informational materials.

It is too soon to have much statistical evidence about the results of this program, but it seems to be effective. The teachers report that the children are keenly interested in reading, and that discussion skills and general writing abilities are improving noticeably. One reason for the apparent success of the program may be reflected in the comment of a grade-six student who observed, "I used to skip over the top of my reading. Now I try to get inside it and find out what it's all about."

C. SECONDARY LEVEL

1. Basic Considerations in a Junior High School Reading Program

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DO WE FULLY appreciate the significance of the current international interest in reading or, for that matter, the special consideration given to reading programs beyond the elementary level in this conference? In the not too distant past neither of these conditions existed. How can we account for the time, interest, effort, and funds now being devoted to this subject? If success is to crown our efforts in this great effort, there must be some comprehension and knowledge of the underlying forces and ideas that foster this concern by educators at all levels.

Underlying Forces

A brief look at the history of American reading instruction reveals the barometric function of reading instruction. According to Nila Banton Smith, the story of American reading instruction reflects the changing religious, political, economic, social, and educational institutions of our growing nation *(4)*. In view of this function of reading instruction and the rapid changes in every phase of our civilization today, the exertion of tremendous effort in the search for the changes in reading instruction that will meet the needs of today's society should not be surprising.

Reading instruction as an important part of the total educational program is caught up in the dilemma confronting our generation as it seeks answers to such questions as education for whom and education for what. The answers to these questions have been sought by educational leaders of every age. No doubt each generation believed that the educational problems facing it were greater than at any other time in the nation's history *(2)*. Yet we feel reasonably sure that past generations were not called upon to face rapid and drastic changes in every phase of life and living as we today are facing. Changes of the past were gradual and usually predominantly in one area of life's activities, such as religion or politics, with the educational changes to meet the new needs lagging far behind them. How can we, people who understand so little about our environment and our major problems in every phase of our civilization, devise an educational program that will prepare our children for tomorrow?

Today's space age civilization demands immediate answers in all areas of society. Right answers must be chosen or destruction has been chosen. Frustration is inevitable. A calm appraisal of the situation reveals a universal need for effective communication. With all of the means and avenues of communication at our disposal we are failing miserably in the real art of communication with our fellowman. The area of communication skills is the connecting link between past and future educational programs.

Although we do not know what will be essential and worthwhile tomorrow in all of the subject areas of our curriculum, we do know that the vast storehouse of knowledge in all areas will be available to those who can read *(2)*. So we must teach mastery of communication skills as rapidly as possible.

Statistics indicate that more than 10 per cent of the elementary and secondary students in this country are retarded in reading and that from 20 to 30 per cent of secondary students are retarded one or more years in reading. The need to solve these problems has stimulated our present interest and efforts in the improvement of the teaching of reading and the development of effective reading programs from grade one through college.

This approach to a junior high school reading program may be questionable. Nevetheless, it is evident that the little Dutch boy who put his finger in the dike was well grounded in the values of the dike to the preservation of his people. Hence, he was willing to endure the physical, spiritual, emotional, and psychological strains necessary to hold the dike. So, too, must we also understand the values of achieving a strong reading program at all levels to the preservation of our civilization, if we are to endure the frustrations and disappointments we shall encounter in the struggle to establish sound reading programs all across our land. A knowledge of the whole is essential to the understanding of the importance of its segments.

Leadership

To develop a strong reading program at the junior high school level calls for dynamic, creative leadership. There must be a dedicated teacher, supervisor, curriculum director, or administrator who is willing to courageously attack the task of creating a favorable climate for reading instruction in the school system. The first and most important step at this point is to secure the cooperation of administrators, counselors, and key teachers. To create a favorable climate for the initiation of a secondary reading program oftentimes requires a change in the school system's philosophy of education and its philosophy of the teaching of reading. Normally changes in philosophy evolve slowly. These are not normal times and some changes must be brought about as rapidly as possible. A very good way to bring about these changes is to involve both teachers and administrators in an in-service improvement project to evaluate the reading abilities of the students from grade one through twelve and to appraise the system's philosophy of education. Fortunately the conditions that have made the curriculum changes imperative have also brought about a certain amount of readiness on the part of both educators and laymen for the acceptance of change. Alert educational leaders will capitalize upon the frenzied search for novel innovations by many people to advance the cause of reading and to bring about the needed innovations in reading instruction.

Philosophy

The viewpoint that the purpose of education is to impart knowledge and thereby transmit and preserve our heritage is no longer sufficient. Students should be thinkers as well as learners. They should recognize the place of discipline in every life and learn self-discipline. Guidance should be provided to assist students in choosing the right values and ideals by which to live. Mastery of communication skills should be a primary objective of education. Perhaps the most significant change in philosophy that should be sought is the organization of the elementary and secondary schools into one system that accepts the responsibility of meeting the educational needs of all the children of all the people.

Organization

The organization and objectives of the junior high school reading program should be developed by committees composed of elementary, junior, and senior high teachers, and administrators. Subcommittees should study problems in meeting the wide range of abilities in classes, class size, special reading-help techniques for individuals, classroom organization, recognition of the gifted, programs for the gifted, use of supplementary materials, use of audio-visual materials, and effective ways of motivating slow learners. The findings of all committees and in-service projects should determine the organizational pattern within the limitations of personnel and funds available for the program.

The plan of organization and the objectives of the reading program should be presented to the total staff for study, revisions, and ultimate acceptance. Once the program is accepted every teacher and administrator should be personally committed to the achievement of its goals. To succeed, the organizational plan and objectives of the reading program must be understood by students, parents, members of the school board, and all school personnel.

Teachers

The next step is the selection of teachers, which is the most important and most difficult task to be accomplished. It is the most important task because the teacher is the only one who can translate the goals and objectives of the program into reality in the lives of the students. Its difficulty stems from the fact that there are so few professionally prepared reading teachers. The teachers most often chosen come either from the English department of the school or from the upper elementary grades. No magic is wrought in either of these teachers by merely changing the assignment.

Rarely has the English teacher ever received one hour in professional preparation in reading or in teaching methods. It is hard for such a teacher to accept the idea that he needs any help in teaching or that he is responsible for motivating interest and guiding learning.

The upper elementary teacher is usually an outstanding instructor in both developmental and remedial reading, and it is true that many of the same reading problems can be found in both the upper elementary grades and the secondary school classes. But there the similarity ends. The problems of the secondary school are foreign to the teacher and he desperately needs a thorough understanding of the secondary school student and the type of reading program that will meet his needs *(3)*.

The situation is not hopeless, for somewhere in each school system are dedicated English and upper elementary grade teachers who have a sincere interest in reading. They must be sought out and encouraged to attend college courses, reading workshops, institutes, and clinics, and take an active part in local in-service reading programs. Expenses for this additional training should be borne by the school system.

Reading instruction must be a regular course in the curriculum with a chairman of the department. The chairman should receive the same amount of released time and salary increment as the chairmen of the other departments.

Methods

The teacher's instructional approach and the method used must fit the individual. This implies that the teacher must know both the student and many methods of instruction in order to fit the right methods to the right child. Probably more important than the method itself is the way the teacher uses it. The teacher's relationship with the student, attitude, patience, and understanding contribute much to the success of any specific method *(5)*.

The ever increasing number of retarded readers and the demand for increased production in all aspects of life are pressures affecting reading instruction. There is widespread evidence of the step up in reading instruction to produce higher competency in a shorter time *(4)*. This pressure has also resulted in the origination of many new methods of teaching reading and the modification of old ones. Each method has its own particular values and teachers should become familiar with them.

Materials

The types and quantity of equipment and materials will be closely related to the plan of organization and the objectives of the program. The selection of these items will require reading teachers to become acquainted with a wide range of materials which will probably be totally or partially new to them. It is wise to use the critical reviews of new materials available in most professional journals *(3)*. A careful study should be made of all varieties of skill texts, machines, audio-visual materials, and individual work exercises in reading *(1)*. An abundance of supplementary material covering a broad selection of subjects of interest to junior high school students written on a wide range of ability levels should be provided for independent reading. Most important is the help available in the selection of reading instructional materials from reading specialists in our colleges and universities.

In-Service Programs

Many factors combine to make it mandatory that a continuous in-service program in reading improvement be conducted. In-service programs must be organized to improve teacher training, to study the many new approaches to the teaching of reading, to understand the secondary student, to evaluate the abundance of new equipment and materials, and to continuously evaluate the reading program.

The administration should structure an in-service program which provides for local group participation. Local groups should be encouraged to identify areas for study and to plan and carry through projects which will achieve desired changes.

Cooperation is the key to the success of in-service projects. Every in-service improvement project should be the cooperative effort of both teachers and administrators. Consultant help should be provided as needed.

Another effective in-service program is the special training courses for teachers with the school system underwriting the cost of the program. The use of the regular summer school for students as a laboratory for teachers enrolled in special training classes or local in-service study groups is another effective method of improving instruction.

In the development of a junior high school reading program there must be a wise mixture of new ideas with basic principles of learning and teaching to produce a sound program. A sound program will produce competent readers, and to quote Frank Jennings: "The more competent readers a society has, the greater will be its capacity for doing good to itself."

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2. Effect of First Grade Instruction Using Basal Readers, Modified Linguistic Materials, and Linguistic Readers*

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Method

THE FIRST GRADE READING STUDY conducted at Syracuse University was one of twenty-seven similar studies made throughout the United States during the 1964-65 academic year under the sponsorship of the U. S. Office of Education. Direction for these studies was achieved by the establishment of a Coordinating Center at the University of Minnesota and agreement among the twenty-seven project directors on common data to be collected and testing instruments to be used.

The Syracuse study was a comparison of three sets of materials designed for the teaching of beginning reading. These were

1. Ginn *Basic Reading Series,* Revised Edition *(1)*;
2. *Structural Reading Series,* L. W. Singer Company *(2)*;
3. *Let's Read,* Leonard Bloomfield and Clarence L. Barnhart *(3)*.

Subjects were 469 children in twenty-one central New York classrooms who, at the end of kindergarten, had been assigned to first grade classrooms by the administrative procedures usually employed in each of the three cooperating school districts. The twenty-one teachers in these classrooms had agreed to be placed in any one of the three treatment groups. Assignment of teachers to the treatment groups was done by means of a table of random numbers.

Children in seven classrooms were taught to read using the Ginn series. It is a program which gives particular atten-

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tion in the primary grades to word-study skills and comprehension skills, good reading habits, and the development of desirable attitudes and appreciations *(4)*. Materials included readers and accompanying manuals, workbooks, tests, word cards, charts, and enrichment materials. The Ginn approach to the teaching of word-analysis skills is one which is termed eclectic in that it involves phonetic analysis, structural analysis, context clues, and picture clues.

The seven classrooms of children which used the *Structural Reading Series* (modified linguistic materials) experienced instruction based on the development of

> an insight into the relationship between the spoken and written language. In this program the spoken word is taken as the starting point; it is the meaningful whole which the child learns to analyze so that he readily distinguishes its component parts (main part and ending). From the analysis of the spoken word, the children advance to the sounding out of the corresponding printed word by learning to recognize the main part at a glance and simply attach the ending. . . . The program starts with a readiness book for kindergarten or grade 1 and proceeds to two books for grade 1 and two books for grade 2 *(5)*.

The remaining seven classes used the linguistic readers developed by Leonard Bloomfield and Clarence L. Barnhart. This program is based on grapheme-phoneme correspondences with no irregular words introduced until late in grade one materials. There is little emphasis on developing comprehension skills at early stages of instruction because of the definition of reading which the authors suggested. According to Bloomfield and Barnhart, initial reading involves only the decoding of printed symbols. Hence, the program includes no systematic approach to the building of comprehension skills. Materials include nine readers with an accompanying manual for the teacher, nine workbooks to be used with the readers, and an ABC book designed to teach the letters of the alphabet before work in the readers begins. The entire program is designed to be completed by an average class by the end of grade two.

Initial activities during September, 1964, included workshops for each group of seven teachers. These workshops were conducted by representatives of the three publishing companies whose materials were being used and were considered necessary in order to familiarize the three groups of teachers with the philosophy and instructional practices upon which the three programs were based. Throughout the year, the teachers met with the Syracuse University research staff in order to discuss any questions on methodology which arose and to share teaching techniques. In addition a member of the research staff observed each teacher every two weeks on an unscheduled basis. Such observation was deemed necessary to make certain the materials were being used properly. The observations also provided questions and problems to be clarified at the periodic meetings.

Pre-experiment testing during September and October, 1964, included

1. Pintner-Cunningham Primary Test, Form A, Revised, 1964;
2. Metropolitan Readiness Test, Form A, 1964;
3. Murphy-Durrell Diagnostic Reading Readiness Test, Revised, 1964;
4. Thurstone Pattern Copying, Experimental Edition;
5. Thurstone and Jeffrey Identical Forms, Experimental Edition; and
6. Allyn and Bacon Pre Reading Test.

Following the pretesting a 140-day instructional period began during which each teacher used for instruction only that program to which she had been assigned. That is, there were no other instructional materials used on a supplementary basis. However, library-type materials were provided each classroom. Pupils could look at or read these as they wished. At the end of the instructional period in May, 1965, the following instruments were administered to all children in the study:

1. Stanford Achievement Test, Primary I Battery, Form X, 1964;
2. San Diego Pupil Attitude Inventory;
3. Writing Sample; and
4. Allyn and Bacon First Reader Test.

A randomly selected subsample of thirty-five subjects from each treatment group was administered the following individual tests:

1. Gilmore Oral Reading Test,
2. Fry Test of Phonetically Regular Words,
3. Gates Word Pronunciation Test, and
4. Karlsen Phonemic Word Test.

Results

An examination of Table I reveals that no significant differences between treatment groups were found on pretest measures of mental age, chronological age, and readiness test scores. In addition to the information reported in Table I, an analysis of variance of the mean scores on all subtests of all the pre-experiment measures yielded only one significant difference. This difference occurred on the Rhyming Words subtest of the Allyn and Bacon *Pre Reading Test.*

TABLE 1
RAW SCORE MEANS OF CLASSES AND RESULTS OF THE ANALYSIS OF VARIANCE ON SELECTED PRETEST MEASURES

Variable	Let's Read N=7	Ginn N=7	Structural Reading Series N=7	F	Significance Level*
CA (months)	76.4	75.1	75.5	2.26	Nonsignificant
Pintner MA (months)	77.1	81.0	78.0	.76	"
Thurstone Pattern Copying	10.1	9.9	7.7	1.88	"
Thurstone Identical Forms	14.3	17.3	15.7	2.67	"
Metropolitan Readiness Test (Total Score)	55.0	62.0	55.6	1.34	"
Murphy-Durrell Learning Rate	10.1	10.7	9.5	1.01	"
Allyn and Bacon Pre Reading Test	61.5	65.7	61.0	1.70	"

*F .95=3.55, F .99=6.01 with 2 and 18 degrees of freedom.

Table 2 contains the results of the analysis of variance of the *Stanford Achievement Test,* Primary I Battery, the Allyn and Bacon *First Reader Test,* and the San Diego *Pupil Attitude Inventory.*

It is apparent from Table 2 that the analysis indicates no differences in achievement or attitude toward reading across the treatment groups. However, on one subtest of the Allyn and Bacon Test, Consonant Blends, a difference is indicated at the .025 level.

An analysis of the results of the Gates, Fry, and Karlsen tests, administered to the randomly selected subsample indicated no differences. However, significant differences in accuracy of reading and rate scores of the Gilmore were noted.

Further study of the available data reveals a very wide range of mean scores for the post tests within each treatment group. For example, the means for the *Stanford Achievement Test,* Primary I Battery, Form X, Paragraph Meaning, in the treatment group using the Ginn Basal Readers were 20.4, 16.9, 18.3, 22.7, 27.1, 25.0, 26.5; the means for the same test for the treatment group using the Bloomfield-Barnhart Linguistic Materials were 10.8, 10.2, 8.2, 16.8, 15.2, 25.5, 19.6; while the means on this test for the treatment group using the *Structural Reading Series* were 10.5, 13.2, 17.9, 15.2, 20.1, 19.1, 29.6. By inspection it would appear that the teacher variable was of significant importance. A statistical analysis of these differences is now being carried out.

The data also yields interesting information related to the performance of boys. For example, on the Word Reading

TABLE 2
RAW SCORE MEANS OF CLASSES AND RESULTS OF THE ANALYSIS OF VARIANCE ON SELECTED POST TEST MEASURES

Variable	Let's Read N=7	Ginn N=7	Structural Reading Series N=7	F	Significance Level*
Stanford Word Reading	18.2	21.1	21.3	1.23	Nonsignificant
Stanford Paragraph Meaning	15.2	22.4	17.9	3.07	"
Stanford Vocabulary	21.7	24.8	21.9	1.39	"
Stanford Spelling	9.8	13.3	10.8	1.36	"
Stanford Word Study Skills	35.4	41.0	38.7	1.64	"
Allyn and Bacon First Reader Test	82.6	95.6	90.0	2.27	"
San Diego Pupil Attitude Inventory	18.8	18.0	18.4	.42	"

*F .95=3.55, F .99=6.01 with 2 and 18 degrees of freedom.

subtest of the Stanford the mean raw score for boys is 19.8, for girls 20.7. When these means are inspected, dividing the population into high, medium, and low mental ages, the high boys have a mean of 24.66, girls 24.43; medium boys 19.28, girls 20.10; and low boys 15.08, girls 14.44. While an analysis of the significance of these differences is not available, it seems reasonable to assume that boys did not achieve differently than girls on this subtest of the Stanford. Similar inspection of other post test results suggests that boys were not different in their achievement from girls.

A full report of the results of this study will be filed with the U. S. Office of Education and other articles will appear in various journals during the next year.

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D. JUNIOR COLLEGE LEVEL

1. Foothill College Reading Program

MARY F. MAINS
Foothill College

FOOTHILL COLLEGE is a two-year community college located in Los Altos Hills on the San Francisco Peninsula in an area of technological industry. During its eight years its faculty has increased from thirty to three hundred; its enrollment from 1,600 to 11,000. A second campus will open in June of 1967.

The reading program has expanded to include two instructors, transfer and terminal courses, and laboratory and counseling service. The two-unit semester elective courses meet twice a week. Able students who have facility with the assimilative skills, who score above the thirty-fifth percentile* on the *Nelson-Denny Reading Test,* are eligible for Analytical Reading, which carries transfer credit.

Their goal is to become aware of their own learning-thinking processes, to overcome their primitive reading habits, to use a selective vocabulary, and to secure a firm grasp of the specific critical-reading skills essential to accurate interpretation and intelligent response.

The basic text is *Power in Reading Skills* by Walter Hill and William Eller; the practice book is *Increasing Reading Efficiency* by Lyle Miller. With Miller students practice rapid comprehension. With the Hill and Eller text they practice the interpretive skills, substantiating their reasoning in terms of the evidence available in the selection. The course includes continual attention to study skills and much summary and précis writing.

Thorough preparation culminates in beneficial discussion. As students reason they employ new skills and develop perception. This progress excites them. When they strive to discard limiting habits, they progress. Motivation stems from everyone's getting involved with materials and with viewpoints. As their perception deepens they become more selective with their thinking skills. The interpretive skills are fun to practice and there is no limit to the kinds of activities that induce class involvement.

Tests consist of selected thought-provoking materials with tasks that parallel those in the discipline. Challenged, the students attack these tests with vigor. Standardized evaluative instruments include the *Nelson-Denny Reading Test* and the *Watson-Glaser Critical Thinking Appraisal.*

The non-transfer course, Basic Reading Skills, promoting reading as a panacea to students, is a continuous challenge. We teach, drill, practice test, and evaluate readers in the lowest quartile. We expose and provide correctives for word-recognition deficiencies and proceed with instruction in the assimilative skills. A useful group screening test is *The Diagnostic Reading Test. The Stanford Achievement Test, Advanced Paragraph Meaning Test,* 1964, is a good skills test. With severely retarded individuals we use *Gray's Oral Reading Paragraphs* or even the *Durrell Analysis of Reading Difficulty.*

Student goals include making use of their communicative abilities, reading, writing, listening, and talking. Specific, effective methods contribute. The organizational skills we practice with simple, well-written, interesting materials. Students avoid misplaced emphasis as they see ideas in proper relationships.

If reading has never been exciting for him, a student must experience this thrill in college; otherwise his talent may be forever undiscovered. Accustomed to failure, retarded readers have no faith in their efforts. But when materials are within their grasp and the class is exciting, they sample success. With methods that involve them completely, interaction among participants occurs. The discovery that they enjoy the struggle, however simple the problem, invigorates their capacity to reason.

Summarizing insures comprehension. The ability to capture the essence of an article in a brief, concise statement proves that one has an organized concept. Writing what he remembers and organizing ideas aids retention. Students summarize, evaluate one another's work, compare opinions, consult the original, and rewrite. From the best summaries that evolve and are singled out for class scrutiny, impressive guidelines emerge. Skills are taking hold.

To evaluate growth we test informally and keep a skills inventory on each student. Each is aware of his specific needs and how to fulfill them since his own knowledge of how he learns and of the reading process equips him for the tasks demanded of him.

We gather materials from authors who write well and whose themes correspond with those indicated by interest expressed verbally or on student inventory cards. Such materials are abundant in books and periodicals. Conservation, nature, exploration, social problems, and human endeavor are popular subjects.

Commercially published materials used include the *McCall-Crabbs Standard Test*

Lessons in Reading (extremely versatile skills' possibilities), Nila Banton Smith's *Be A Better Reader, Bks. 11 and 12* (a good, basic text with excellent devices), Julia Sherbourne's *Toward Reading Comprehension* (organizational skills, phonics, and vocabulary), and *Reader's Digest Skill Builders, Advanced.*

No credit organized laboratory practice is available three hours a week. The Vocabulary Laboratory presents lessons in sequence stressing structure and derivation. Enrollment is large and attrition is slight. Spelling help is given on a referral basis. *Improve Your Own Spelling* by Eric Johnston is simple and direct for use with lectures. For speeded comprehension practice we use the *C-B Educational Films, Phrase-Reading Series,* by Henry Bamman, Grace Brown, and Guy Browning, accompanied by short lectures on techniques.

Individual referrals represent the gamut of reading problems and usually require a series of conferences and often collaboration with faculty in other disciplines. The most revealing single activity that affords intelligent direction is the observation of the individual student in conference and at work.

Records, statistical reports, surveys, follow-up studies, and convincing student testimony suggest that the current reading program at Foothill College is practical.

2. The Long Beach City College Reading Program

LANOR WEST

Long Beach City College

LONG BEACH CITY COLLEGE was established in 1913 and now has an enrollment of approximately 15,000 full- and part-time students per semester. Of these, about 1,700 a year are registered in a reading class. Students whose entrance examinations show that they are deficient in reading are advised to enroll in a reading class which best fits their needs. Students may, however, simply elect to take a reading course. There are three general groups which fall roughly into grades 1-6, 6-12, and 12 plus. No screening process is completely accurate and so there is some overlapping in each area. Individualized instruction makes possible more effective teaching for such a wide range of ability. Classes averaging 30 students meet for three hours a week. The two higher groups receive three units of credit toward an A.A. degree.

In the lowest group the most basic reading skills are initiated and developed. Phonics, word-attack skills, vocabulary building, and elementary concepts of comprehension are stressed.

The middle group is by far the largest. The emphasis at this level is directed toward the three interrelated areas of speed, comprehension, and vocabulary building. Motivation is an especially important factor in teaching students in this group. Many of them are only now beginning to realize the value of education and that reading is the key that can open doors to greater learning. Unfortunately many of these students have built attitudes which block these very doorways. Techniques and materials to bypass or overcome these attitudes are a necessity if much progress is to be made. In the past three years the school has turned more to mechanical devices to help with the problem. Several types of machines and programed materials have been found to give added incentive to reading and learning for varying lengths of time, but the one that has proved the greatest motivator for the longest period of time is the Craig Reader. The school has two laboratories which are equipped with forty-two individual type machines. The average improvement is greater where individual machines rather than large-group approaches are used. The *Iowa Silent Reading Test* scores indicate an improvement of more than three years per semester.

The most advanced course, which is largely elective, is listed as Effective Speed Reading, and, as the title indicates, more attention is given to speed. The vocabulary and comprehension studies are more intensive, critical, and interpretive than in the lower course.

Reading plays such a vital role in our society today that Long Beach City College tries to offer a program of reading improvement for all adults who seek it.

3. The Reading Program at El Camino College

MARVYL DOYLE
El Camino College

DEVELOPMENTAL READING is offered at El Camino College by the English Department as a four-hour, two-unit, elective course. At present we serve approximately 665 students yearly. Next year we will increase our enrollment to almost 900. Given our present facilities, this latter number is our limit. However, plans are underway for new housing which can double that figure.

Although the course is titled "Developmental Reading," many of the students can more properly be termed "remedial." Approximately one-half fall below the 30th percentile on national norms for such tests as the Nelson-Denny and the Diagnostic Reading Test. However, a sizeable number of students enroll to improve already good or superior reading skills.

A program for as varied a student population as this one must, of course, be individualized. Thus, we spend most of the first two weeks in diagnostic and placement testing. On the basis of the test results, students are assigned laboratory and home study tasks utilizing such materials as the Craig Reader, the Controlled Reader, pacers, SRA reading and spelling kits, programed vocabulary builders, individual readings in fiction and non-fiction, and various locally-prepared practice exercises. During laboratory sessions, the instructors attempt to answer questions, check individual progress, and generally encourage the students. In addition, a part of each class is devoted to lecture-discussion of reading techniques and study skills.

Student response to the course is highly favorable, and student gains—both those indicated by comparison of initial and final testing and those reported in subjective student evaluations—are encouraging. We believe that students are motivated in part by the variety of work and materials available to them, and in part by their own progress records (our students keep records of all their tests and progress sheets of work underway). Also important is the fact that the course is elective—the student feels he has chosen it, not that he is being forced to meet a school requirement.

Our major unsolved problems are (1) whether or not to develop a separate, required remedial reading course; (2) where to obtain an interested and trained teaching staff; and (3) how to design a suite of rooms and offices that will serve both immediate and future needs adequately.

We should like to be able to spend more time on research and development of test instruments and teaching materials. We feel that we are not yet able to serve all of the students who desire help. That is to say, we have the same gnawing problems that beset most reading programs. But we also share the belief that reading courses at the college level are doing a necessary and important job.

COUNSELING AND GUIDANCE IN READING

A. PRIMARY LEVEL

1. Guidance in Learning

RUTH STRANG
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JOANNE, WHO HAS attended nursery school and kindergarten and has above average ability, is not making due progress in the primary grades. What guidance should the primary teacher give?

This answer depends upon what is causing the underachievement. The causes may be physical, intellectual, emotional, or social; they are almost certainly multiple. She may be handicapped by uncorrected defects of vision or hearing; she may have a low-energy level, owing to malnutrition, sub-acute disease, or serious illness. Initial failure breeds further failure.

Numerous emotional factors may interfere with a child's school achievement. The withdrawn child prefers to live in a world of fantasy rather than in the real world. The hyperactive, aggressive child may rebel against reading. The neurotic child is distracted by his inner conflicts; he cannot pay attention to reading instruction. The "bilingual" child may not even understand what the teacher expects him to do.

The child's social relations with the teacher and with the other children also affect his success in learning to read. Said one bright fourteen-year-old boy who was reading on the third-grade level, "When I was in the first grade I didn't like the teacher." He quickly added, "The teacher didn't like me, and I had the same teacher for two years." A child who has not learned to get along with other children, or who has developed a general hostility, has difficulty in putting his mind on reading.

The teacher will note any situations in which the underachiever *does* put forth or *is* receptive to instruction and will try to create these conditions more frequently.

When the child is making no progress, the teacher will remind him of the project he did complete successfully, the approval he received, the satisfaction he felt.

When he makes even a small move in the right direction, the teacher will not wait until he has completed the whole assignment but will give him at once something that he can consider a reward. She will also encourage him to keep a simple objective record so that he can see the results he is achieving.

When he does something right—remembers a word she taught him the day before or reads a sentence well—she will praise that accomplishment. She will not pounce upon his every mistake.

Billy, who did well in the first grade, is getting lower marks in the second grade and is worrying about it. There are many possible explanations for this. He may have relatively little ability to deal with abstract tasks. The first-grade teacher may have emphasized rote memorization and concrete tasks that he could do. Now more reasoning is required and the words are becoming more abstract. He may need special guidance to bridge the gap between the concrete and the abstract.

On the other hand, Billy may be a bright child who has already learned to read and is bored by the group reading instruction. Reading is not rewarding to him. He has become disillusioned with reading and with school. The Denver experiment in teaching preschool children to read showed that the early reader maintained his advantage only when the first-grade teacher adjusted the program to fit his interests. Too many bright, socially competent children enter school with above average scores in reading but do not gain in reading ability during the year. They have had opportunities to go on errands and to help other children but have not developed good work habits or received the instruction in reading that they need in order to realize their potentialities. On the other hand, some children who were initially retarded in reading have markedly increased their initial achievement.

A psychiatrist who recognized the danger of putting too much pressure on children advised Billy's parents to ignore his low marks in the second grade. However, Billy may need not indifference but firm and skillful guidance. A certain degree of anxiety is prerequisite to learning. Although it is desirable to prevent the intense anxiety that disrupts learning, children need to develop the attitude that mistakes and failures are opportunities to learn.

Guidance has two interrelated aspects: guidance of the child as a person and the more specific guidance of the child as a learner. He needs both if he is to succeed in beginning reading.

Guidance has been defined as the process of helping every individual, through his own efforts, to discover and develop his potentialities for personal happiness and social usefulness. Similarly, guidance in reading is the process of helping every child, through his own efforts, to discover and develop his reading potentialities. Let us now consider each phrase in this definition of guidance.

Guidance Is a Process

The environment is the source of much effective guidance; this kind is not verbal. The teacher guides by setting the stage for learning. She provides many stimuli: appealing books on each child's reading level *(3)*; interesting experiences for children to talk and write about; all sorts of materials for spontaneous self-expression —perhaps a typewriter or two.

The teacher also provides "a responsive environment," one in which the child takes the initiative and the teacher responds appropriately. This method was the principle underlying O. K. Moore's work with preschool children at Yale. When the child struck a letter on the typewriter, the investigator responded by saying the name of the letter.

The way in which the teacher responds to the child affects the child's ways of perceiving, thinking, and remembering. She may call his attention to certain likenesses and differences in letters and words, encourage him to get the meaning of a word from its context, or aid his memory by incorporating the new into a familiar pattern.

The teacher's response also affects the child's self-concept. Instead of saying, "Is that all you've finished," the teacher can call the child's attention to the progress he has made: "Why you've done more than half of it already!" Expecting too little of him tends to lower his level of aspiration; expecting the impossible undermines his self-confidence. Stepping in too soon to help him deprives him of the satisfaction of accomplishing the task himself. Delaying too long to give assistance allows him to develop feelings of frustration and inadequacy. By using "operant reinforcement"—rewarding any moves in the right direction—the teacher guides the child toward success in each learning task. The teacher utilizes the child's strengths in order to build a feeling of confidence and success. But she also corrects his errors and strengthens the areas in which he is weak, skillfully avoiding overemphasis on mistakes and failures.

Interaction among the children becomes increasingly effective as they begin to attach greater significance to one another than to the teacher.

In short, the ideal classroom atmosphere is one of children learning and growing, becoming more and more competent as readers and as persons.

There is, of course, a verbal aspect to the guidance process. The teacher guides through her questions and comments. Some of the teacher's questions direct the child's thinking in creative ways. For example, in science or social studies children can be encouraged to predict outcomes on the basis of their knowledge and experience and then check with the facts presented in their books. In reading a story, children can be encouraged to speculate on what will happen. What kind of characters will be in it? What kind of experiences may they have? How may the problem be solved? Was the solution you suggested as good as the one arrived at in the book? Why, or why not? By asking questions of this kind the teachers can encourage creative thinking in many reading situations *(1)*.

In oral reading the teacher may help

the child convey the meaning of the selection he is reading by suggestions such as these: "Read this paragraph the way the father would say it." "Say this as if you were talking to the father." "Read the next sentence the way the policeman would speak. He wouldn't say word by word, 'Why - did - you - take - that - bag - from - the - car?' He would say, 'Why did you take that bag from the car?'" The child's intonation will show whether he has got the meaning of a sentence. Following the teacher's example, the children begin to ask their own critical and creative questions.

Guidance is allied to skillful instruction. The teacher's attempts to build children's self-confidence and self-esteem will fail if she does not find methods by which they can learn. Experimental psychology is giving us more clues about the learning process. Without this knowledge we cannot teach effectively. Wittrock's experiment *(5)* suggests that the less intelligent college student tends to learn by recognizing similarities; the more intelligent, by noticing differences. Ausubel's work *(2)* suggests that one can facilitate comprehension by introducing in advance relevant concepts with which the child is already familiar; he can then relate the new ideas to his previous "hierarchical connative structure." Gagne outlined some steps for giving special verbal instruction before the reading of a selection: (1) identify what the student is to learn from the selection, (2) direct his attention to relevant parts, (3) recall relevant principles or concepts immediately before the reading, and (4) guide the thinking process by means of specific questions on each well-defined step in the reading-thinking process.

The other phrases in our definition of guidance need less elaboration.

Helping Every Individual

The retarded readers tend to usurp the teacher's attention, often to such an extent that she neglects more able learners. In the primary grades the emphasis is clearly preventive and developmental. All pupils are given reading instruction in the regular classroom. Remedial groups are necessary only when the classroom teacher cannot help the children as soon as they begin to experience difficulty.

Through His Own Efforts

From the beginning the child should take initiative and responsibility for his own learning. As we have already suggested, the teacher responds to the child's initiative in selecting his activities, in asking questions, and in using the methods of learning that are most effective for him. As the child imitates the teacher's method of guiding him, he learns to guide himself.

To Discover His Potentialities

Diagnosis is essential to guidance. In any class, even in so-called homogeneous classes, the teacher finds children whose abilities in various phases of the reading process range from the bottom to the top. Murphy found that some of the very poorest readers had the highest scores in spelling, in the ability to do elaborative thinking from reading, and in knowledge of diacritical marks. "This means that the teacher cannot assume that children's instructional needs are the same just because their scores on achievement tests are alike" *(4)*.

By listening to a child read several graded paragraphs, the teacher can determine his general reading level and analyze his difficulties; moreover, it may reveal his concept of reading and his attitude toward reading and toward himself as a reader. This diagnostic information the teacher can use immediately. Starting where the child is, if she finds that he does not learn by one method, she tries another. Some teachers who are sympathetic with slow-learning pupils do not expect them to achieve; they do not try to teach them all they *can* learn.

To Develop His Potentialities

This development is our aim in teaching reading. It can be accomplished by making appropriate responses to the child's initiative, by asking informal questions and offering comments that encourage him to read accurately, critically, and creatively, and by giving him specific verbal instructions for reading a given selection. By creating an atmosphere in which children feel they are learning and growing, the teacher helps them to become more and more competent as readers and as persons.

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2. Helping Teachers of Reading Meet the Special Needs of Children

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THE TASK OF trying to help teachers to improve the learning situation of the disabled reader presents a very great challenge. Pressures are almost overwhelming to provide more learning faster and at an earlier age. Because knowledge and understanding of factors which operate to inhibit a child's progress at school are often limited, an increasing responsibility is placed upon the reading specialist to provide necessary assistance to teachers in meeting problems in learning to read as they arise from day to day in the classroom. The purpose of this paper is to discuss some of the ways in which the reading specialist or consultant is able to work with teachers in her area in an effort to bring greater insight and understanding to the task of teaching the disabled reader. This work is done in several ways:

(1) As a clinician and therapist, the consultant sees youngsters who are referred to the clinic from schools, parents, doctors, and welfare agencies for diagnosis and, in a few cases of severe disability or where continued diagnostic procedures seem to be advisable for a period, for treatment. She consults on the cases with other clinical workers such as the psychologist, the speech and hearing therapist, the social worker, and the psychiatrist, to assist in working out appropriate plans of treatment. As a clinician, she is responsible for interpretation of the diagnostic findings to the appropriate school personnel or other referring agency.

Information is coordinated from home, school, and other disciplines involved in the case. School personnel are encouraged to share in discussions of the findings so that a better understanding of the child and his problems is effected. The reading clinician may then work out a program of remediation with the classroom teacher, suggest alternate procedures for teaching, and possibly introduce different and more appropriate materials for classroom instruction. A different kind of grouping procedure may be suggested which will more readily enable the teacher to deal with the situation within the classroom environment. Often the child may have to be dealt with as an individual, even though he is a member of the group, and the teacher may need help in handling this problem. Such cases will be followed up by the clinician and progress evaluated from time to time, with possible modification or termination of the special program as is indicated.

(2) A second way in which the consultant works with teachers is by consultation on cases which are probably less severely disabled but, nevertheless, in need of special assistance. The teacher in such cases will make a direct request for help. The consultant may then make a visit to the school to discuss the child with the teacher in relation to the special problem. For example, help may be needed with a child who at first was considered to be on the dull side because he was not coping with the daily program. He did not complete his assignments. He was apathetic. In discussion with the teacher it was learned that the child suddenly came alive during discussion of science projects. Responses in class discussion were superior and he performed well in arithmetic computation. Closer observation of his behaviour indicated that, far

from being dull, this boy might actually be very bright, and he might be suffering from boredom and a lack of motivation. Confirmation of his superior ability was given by the school psychologist when he was called in to further clarify the situation. Under the direction of the consultant the teacher was encouraged to administer a few standardized tests in order to get a measure of achievement which would confirm or clarify the teacher's more subjective estimate of the boy's ability to read.

A special program of remediation was planned for this boy to make use of his special interest in science. A new attitude, created by new understandings about the boy, plus the special positive attention he was receiving, seemed to do wonders. It was not long before he was able to function well in the top group of his class rather than at the bottom.

This type of program gives the teacher some help in meeting the needs of the less severely disabled or the child whose difficulty is corrective in nature. Hopefully, what she learns about evaluating actual levels of achievement, looking for signs of better functioning ability, selecting appropriate remedial techniques, materials, etc., will carry over to her dealings with other children.

(3) Another task of the consultant has to do with the training of a group of remedial teachers selected to service schools in the different areas. Educators in the district have long realized that the clinic cannot diagnose and treat all the disabled readers, and so many have agreed to a plan to select competent teachers who can be trained to handle a majority of the reading disability cases to be found in their respective districts. This method has been done in cooperation with the clinic which has agreed to assist in in-service training and to undertake a limited amount of continuous supervision of remedial reading programs. There are two types of special remedial reading programs being conducted. In one type of program the remedial reading teachers, following some initial training, become virtually an arm of the reading department of the clinic, take their case load from the clinic, and are closely supervised in the treatment program. In the second type, remedial teachers have limited supervision because of the lack of facilities available for supervision. The case load in this latter case is controlled by guide rules worked out in conjunction with district supervisors. It was realized that fairly firm guide rules needed to be laid down else there was a danger that children who are essentially slow learners or retarded and not actually underachieving might find themselves in the program. Teachers are ever the optimists and always hopeful that with extra pressure little Johnny will learn to read better. This points out another task of the reading specialist—that of helping teachers to learn to differentiate between slow learners, retarded children, and underachievers, the underachiever being the child who is not achieving as well as one might expect he should be doing in view of his intellectual ability. The underachiever is the child who is in need of remedial teaching. The consultant, however, must provide help to the teacher in adjusting her program to the different rate of learning of the slow learner.

Since specialized training in the teaching of reading is not readily available in this area, clinic personnel have taken on a responsibility to help out with this necessary training as much as possible. Hence special workshops in remedial reading have been offered during summer periods. Reading teachers coming newly into the "program" have been able to take advantage of these workshops to gain some specialized training. Such workshops provide a reasonable introduction to remedial programing but in themselves cannot suffice as a means of training. Workshops need to be followed by regular in-service programs in order to reenforce learnings, to clear up difficulties which arise, and to keep abreast of new ideas. But as well, whenever possible teachers need to be encouraged to go to outside centers of study for further training.

For those who are learning on the job, so to speak, a week-long institute is usually planned for early in the new year before the remedial reading teachers have really settled into their tutoring programs. These are arranged in school time since the teachers do not register classes and are held on half days only, leaving the other half day free for the preliminary investigations which must take place in the school before a remedial program gets under way. During the year, monthly in-service meetings are held. These involve activities such as the study of a new professional text on reading, an examination of different ways of improving comprehension skills, or possibly an analysis and evaluation of some new tests with an investigation into the purposes for which each can be used. In addition, regular consultation periods are set aside for each teacher during which she may receive help with the special problems pertaining to her area.

Study sessions are intended to stimulate understandings concerning the development of reading skills through examination of possible causes of reading disability, through study of formal and informal diagnostic techniques and materials, through analysis of various approaches to the improvement of word recognition skills, and through investigation of ways and means of improving comprehension and interpretive skills. Materials for independent reading as well as for additional practice of skills are readily available for examination. A good professional library permits more serious study of particular aspects of the reading program.

Better results seem to be achieved when the remedial reading teacher is able to work closely with the classroom teacher. In fact, the two must work together in the search for a successful solution to a child's learning problem. Ideas can then be exchanged and new materials tried out. Parents need also to be kept in the picture; for when parents understand the objectives to be achieved and the procedures which are being used, greater cooperation exists and the prognosis for success is much more certain.

A main objective of in-service programs is to increase knowledge and make the performance of teachers more effective within the school system. In pursuance of this goal in-service must be continuous, not only because evaluation of present practice needs to take place but also because of the fact that if we are to meet the demands of today's society, teachers and educators must keep up with research findings, consider their relevance to present practice, and be willing to incorporate what has proved worth while into the reading program. In reaching this objective, demonstrations have proved effective in helping teachers to accept new ideas and use them in their own programs.

Experience suggests that it is important not to try to accomplish too much too soon. A useful procedure with individual groups has been to present an overview or pattern of the various factors involved in a good remedial program while looking ahead to a series of programs which will concentrate one at one time on smaller or individual aspects. For example, early next fall a group will take part in an institute which will look at testing, considering selections for specific purposes and how to analyze the results in order to obtain information which will assist teachers in planning for remedial treatment.

To avoid having in-service programs become a chore and, therefore, not very productive, it is sometimes wise to arrange that sessions are not always held during the teachers' so-called free time and that the teachers are encouraged to participate in the planning. In one district it was arranged that, after an initial session which introduced the teachers to some of the important factors involved in remedial teaching, subsequent programs should be held during periods in which teachers were free because their classes would be taken over by other subject-matter specialists — *e.g.* French, art, music, and physical education.

Support from administration is essential in any successful venture of this kind. Indeed it is to be desired that the whole team — superintendent, school principal, elementary supervisor, classroom teacher, remedial reading instructor, and consultant — will share a common objective in the active search for improved methods of helping the disabled reader become a much better reader.

The key figure in the whole situation is the teacher who has basically a warm acceptance of the child as a human being of worth; who discovers his strengths and weaknesses, and adjusts her instructional program according to his various abilities and interests; who is not afraid to experiment and try out new ideas and materials; and above all, who is herself an avid reader.

3. The Changing Role: From Teaching to Guidance

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ELEMENTARY guidance, at least in the formal sense, is a fairly new idea on the educational scene. Because it is a fairly new concept, a concise definition of what is meant by the term is not to be found readily. While guidance programs do exist in some elementary school systems about the nation, the guidance people themselves in many states are still at the stage of defining the role and responsibilities of an elementary guidance worker. As a consequence, the definitions and descriptions of elementary guidance which we have available to us are highly varied. Not only do these definitions vary, but the proponents of the various definitions appear to be quite adamant in supporting their particular positions.

Description of Elementary Guidance

Before presenting a working definition of elementary school guidance, I would like to insert a necessary preface at this point. I think that it is important to note at the onset of any discussion about elementary guidance that many, and perhaps all, of the services that are commonly attributed to the elementary guidance program are now being provided—at least in some degree—by the classroom teacher, by the building principal, and by other staff personnel. Hence, it is important to realize that new or different services are not necessarily being suggested when someone proposes that an elementary school develop a guidance program. Instead, the essence of such a proposal is that the present services be formalized in a sense and that a professionally trained person who has specialized in a particular segment of such school services will now become available to assist the classroom teacher in dealing with children — or, as someone has put it, in helping the teacher meet the needs of the children.

So, then, what is elementary school guidance? To ask the question in words that may secure us a more direct answer, we might ask what are the services with which this new educational specialist will help the classroom teacher? What is the role of the elementary school guidance person in the elementary school?

Numerous conferences and colloquia have been held to grapple with this very question. There appears to be some general consensus at least that the primary purpose or objective of elementary guidance is to help children deal with, or meet with, or adjust to, the varied problems which they meet.

The types of problems which children encounter are, obviously, numerous. According to some writers in the guidance field, children may need assistance in dealing with personal problems which arise from some physical health problem which they may have, such as coping with an asthmatic condition or a noticeable visual defect. Other children may need specialized help in order to handle an emotional or social problem, such as coping with the fear of being bullied or tormented by the "tough kid" on the way to school. Other children may need help because they sense that they are not fully accepted as members of the neighborhood peer group. Some children may need assistance in dealing with academic problems, such as low motivation for school work or poor study habits. And, as children approach adolescence, some guidance authorities note that some children begin to seek information regarding vocational choices.

If these, then, are the needs of elementary boys and girls, the services of an elementary school guidance program are those which will provide for those needs. The services which are typically provided by an elementary guidance program include the following:

1. Compiling an inventory of information about each student as he proceeds from year to year through the elementary grades;
2. Testing pupils and interpreting test data to pupils, teachers, and parents;

3. Counseling with elementary students about such problems as grades, adjustment problems, and motivation for school work;
4. Providing an orientation for pupils as they enter a new school building or as they proceed to the next higher educational unit, such as junior high school;
5. Providing occupational information to students, particularly those in grades five and six; and
6. Providing open channels of communication by which children can be referred for more specialized help if needed.

That such services are needed there seems little question. The crucial questions, however, deal with determining who should provide these services. Should these duties remain the responsibility of the elementary classroom teacher? Or should these duties be reassigned to a specialist who is typically known as the elementary guidance person?

This question essentially defines the crux of the current controversy about elementary school guidance. Persons on one side of the controversy claim that the elementary classroom teacher is the most appropriate person to supply these services because of her close contact with the students. Others, to the contrary, claim that the classroom teacher cannot adequately meet all the needs of children because, as they claim, she is too busy with other teaching responsibilities. They add, also, that the classroom teacher is not adequately trained to supply certain of these services, particularly counseling.

Knowing what busy people elementary teachers are—and reminding myself of the rapid changes that are taking place in the subject matter of the elementary curriculum and further reminding myself of the growing complexity of the elementary school "operation," I will grant that the promise of supplementary help for the classroom teacher is indeed inviting.

I think that much can be done to assist the classroom teacher with compiling information on cumulative folders, with conducting testing programs, with orienting students to new schools, and with making referrals to specialized agencies. Relieved of these types of duties, the classroom teacher can then devote greater time and effort to her primary responsibility—the elementary child and his learning experiences.

The Role of Counseling

I have purposely withheld comment about the counseling phase of the proposed guidance services. The guidance people, you will recall, hold that the typical elementary classroom teacher does not have sufficient time to do adequate counseling, and they further claim that the elementary teacher is not sufficiently trained in the skills of counseling. Therefore, they assert that a trained specialist is needed.

If we describe counseling at this level as being limited to helping boys and girls primarily with adjustment and motivational problems, I would urge that such a responsibility remain the central function of the classroom teacher. The classroom teacher must find the time to help children with these types of emotional, social, and academic problems if she is going to fulfill her professional role within the classroom. Moreover, we as elementary teachers, I think, will be the first to admit that we are in fact limited by our sophistication about adjustment processes and counseling techniques. These circumstances, however, need not obviate our attempts to seek more adequate skills. To the contrary, we should strive to seek a greater understanding of the personality dynamics of children and to seek more refined skills in working with children's problems.

My position is based upon several assumptions. First, I assume that the classroom teacher is a very real person in the eyes of the child and that she is one of the "significant others" in the interpersonal environment of the child. As a consequence, a person in such a relationship with the child would be able to work more effectively with the child than would someone who meets the child only intermittently during appointments.

Second, I also assume that the process of helping someone with adjustment problems can better be done within the real-life, day-to-day classroom situation than within an artificial segment of life where the child is removed from the classroom and sent to an office down the hall for an appointment.

Third, I also assume that, ideally, it is better to help children with their problems when the problems first arise—to deal with the problems in a preventive fashion within the actual context of the classroom rather than to wait until a referral can be made to a guidance counselor.

What I am saying in all three of my assumptions is that counseling with elementary children should not be the sole province of the guidance specialist. To the contrary, any elementary teacher who is doing her job professionally and conscientiously is unavoidably involved in the counseling-type role with children. When a classroom teacher works diligently to establish a secure personal relationship with each child so that the child will not have anxieties about the learning situation, this teacher is providing for the emotional needs of that child. When the classroom teacher spends a few minutes talking privately with a child about his problem of getting along with his classmates, this, in my estimation, is vital counseling.

The teacher of reading, particularly the primary teacher and the remedial reading teacher, needs to be particularly sensitive to the psychological needs of children. They need to be skilled as well in dealing with those problems which may interfere with the child's process of learning how to read.

Even though supplementary guidance services are provided at the elementary level, we must not lose sight of the fact that the elementary classroom teacher is unavoidably in an intricate, and often delicate, psychological relationship with each and every child. As a consequence, the classroom teacher cannot avoid the counseling type of relationship. Hence, it seems important that the elementary classroom teacher perceive her role as a changing one, at least in part, from teaching to guidance.

B. UPPER ELEMENTARY LEVEL

1. Insights on Counseling Needs as a Clinician Sees Them

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Counseling Defined

"COUNSEL" AS DEFINED by Webster is "mutual advising" or "deliberation together." "Insight" involves "keen discernment" or "understanding."

The point of view in this paper is in line with these definitions. Counseling is seen as a mutual sharing of understandings about a child in relation to his total environment.

For effective work, the sharing of information and observations is fundamental to developing insight into possible ways of changing attitudes and overcoming basic academic difficulties. As an example, it is often apparent that many children in the remedial reading groups work well in small-group situations but not within the classroom. The teacher and tutor have opportunities to review their findings together. As a result of such contacts, the tutor might try to develop, specifically, the transfer of positive attitudes in her area to that of the class, possibly through direct discussion, story material, and increased emphasis on independent assignments within her group. The teacher, also, may reassess her procedures to determine the feasibility of developing a different approach or of using different materials for instruction.

Basically, an exchange of information needs to take place to clarify the aims and goals that evolve. Many parents wish to know how they may participate in working through problems; others show no interest. A teacher will report that he is unable to deal with certain kinds of difficulties and may well insist on a change of class placement for the student or for himself. A student may show that he is able to assimilate information about himself and use it positively in spite of interfering factors within the home or school.

Essentially, insights for the clinician are gained through the diagnostic procedure. In a Child Guidance Clinic such as the Winnipeg Centre, the Reading Clinician has access to social work histories, psychological and psychiatric reports, speech and hearing evaluations, school information, and his own diagnostic materials. Although all of these records are not available for each child referred, pertinent information exists according to the nature of the problem. It is possible, therefore, for a clinician to look at a child in some depth, to make clinical judgments about the findings, and to formulate some plan of action in the light of these findings and in conjunction with others involved.

The chief area of emphasis for the Reading Clinician involves, primarily, the child and the school. Apart from initial interviews and periodic contacts with the parents, home follow-up in many serious situations is maintained by the school social worker. The clinician's function is to work with the other related disciplines while focussing on the problem as it manifests itself in learning difficulties.

Common Findings

Because of continuing failure and the attitude of others, many children see themselves as "stupid," "dumb," or "bad." They and the "important people" in their world have concentrated on their short comings for so long that the children often take the view that they are most inadequate people. As one mother stated—"You get so used to noticing the things he cannot do, you never really see the ones he can do." Another mother quoted her husband as saying, "When other fathers talk of their sons, I have nothing to say about mine."

Sometimes this negative tone is reinforced within the school where one will hear comments such as—"He cannot follow directions"—"He does not know his skills for this level of work"—"He cannot be relied upon in any independent situation." No one would argue with such statements, but these impressions need to be viewed in relation to the existing strengths.

Counseling work in this area focusses on seeking out the strengths as well as identifying the weaknesses. Often the findings agree with many of the negative viewpoints but simply present a new way of looking at a child. The conclusions may be that the child is underachieving, but at a particular point in time he has been able to learn a certain amount of material. He may not be reliable in independent activities, but he may have a contagious spontaneity in interpersonal relations. The task then becomes one of exploring ways and means to use these strengths. There are no "pat answers," but plans develop in the light of teacher capability, parental strengths, school acceptance, and the nature of the particular problem.

For example, one boy who had received a considerable amount of treatment for emotional difficulties was placed in the regular school situation but not in his home school. Much interpretation about this boy was given to the teacher. It was emphasized that he would regress markedly under stress, but with support he could respond. He was fairly adequate in arithmetic computation, but had a lot of trouble with reading.

Arrangements were made for him to receive additional help from the remedial reading tutor, and for the teacher to confer regularly with the tutor and, when possible, the Reading Clinician. In addition, the school principal decided to include him in a special group working on arithmetic problems in order to become acquainted and to help him make greater use of his numerical skill.

As was expected, behavior fluctuated and academic response was extremely limited at times. Frequently the teacher would become discouraged as she seemed to see this situation as a threat to her ability to deal with the child. Again, the background of the problem would be reviewed, and the teacher would be helped to see that gains were being made. By continually stressing his forward movement and yet giving recognition to the evident weaknesses, this teacher seemed to be able to develop greater objectivity and confidence in her handling of a very difficult problem. Basic to her approach was her initial acceptance of this boy.

In another situation, counseling insights took a somewhat different direction. A sixth-grade boy frequently became very angry with his teacher over small matters. He would "explode" in such a way that she, in turn, would become angry with him. At the time of diagnosis, teacher and pupil were quite antagonistic towards each other.

Interviews and tests revealed the possibility of mild cerebral dysfunction and also pointed up a reading problem. This boy came from a home with many strengths; and he, himself, when not faced with excessive frustration, exhibited many personal qualities. He could relate well to accepting adults and was eager and anxious to socialize with his classmates. Also, he seemed willing to learn but was confused easily.

With this boy, the decision was made to focus on the reading problem through tutoring at the clinic. Contacts with the teacher resulted in little change of attitude, but she expressed a degree of relief when plans were made for him to be out of his class for at least two sessions a week.

From the beginning the youngster's low frustration tolerance was evident. But as time went on he seemed to respond to verbalizing about his explosive reactions. This talk would be followed up with a step-by-step assessment of the problem. Frank sessions were held concerning his role in relation to the teacher; and although he expressed no affection for her, he decided to work towards attempting to deal with his own problem behavior.

For the next term, a request was made for junior high placement with a known, accepting teacher. After interpretation to this teacher, she was able to anticipate many frustrating situations for the student and could give the necessary support. Eventually, she was able to make greater academic demands. The student seemed to feel better about himself and could cope with his environment more effectively. Prior to the diagnosis, his behavioral outbursts had often been misinterpreted and had had a damaging effect on his own concept of self and on the way he was perceived by others.

To work with children from culturally disadvantaged areas requires insight into their value systems, the facts of their environment, and their view of school and learning. Here the teacher needs to shift her academic goals and concentrate on the very real needs that exist. Because of severe home inadequacies, much effort is required to extend and develop the language area. Frequently, measures of intelligence reveal at least average nonverbal abilities with limited verbal power. Repeatedly the question is asked: "If he is of average ability, why isn't he learning?"

With many of these children, the deficit may never be overcome. However, by underscoring the fact for teachers that the school is possibly the main single factor in stimulating academic growth, changes in level of expectation occur. If strict adherence to regular grade standards is maintained, neither teacher nor pupil experience much satisfaction during the school term. Where the teacher is able to plan her program in a flexible way, she is able to capitalize to a greater extent on the existing strengths within her class. Visual reinforcement of the teaching materials—film strips, slides, murals, and direct experiences—help to provide the much needed background. Also, within the class, related reading materials with varying degrees of difficulty are necessary to round out the lesson. Diagnostic assessments point again and again to the need for such approaches in the academic area.

Sometimes the individual interview gives leads into possible interest areas for reading materials. Many children with difficulties reveal rather non-specific interests. They are often quite satisfied with a passive TV diet, and have no particular desire to cope with books. As one boy said—"Why should I bother when I can have lots of stories from the TV." Later, group pressures stirred him to the extent that he thought he would make a beginning. At one point, he remarked spontaneously that he "really liked" the stories which were from one of the series for reluctant readers. Follow-up discussion with the teacher and sharing of findings brought about further reading development with this boy.

Conclusion

Counseling insights, then, take many different directions. They may relate to the parent and the child, to the teacher and the child, and to the child himself. The aim is to work towards establishing realistic goals for work with children, especially those with learning problems. Attempts are made to view the problem in the light of the total setting and to devise ways and means of building on existing strengths with due concern for weakness.

2. Teaching through Reaching One and All

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MOST TEACHERS and psychologists know the importance of children succeeding in school. They know how crucial it is that the child be ready in all aspects—physical, intellectual, social and emotional. They work toward establishing good relationships with their pupils. Why then are there still so many children who have difficulty in school?

Undoubtedly the abominations arising from urban living, such as overcrowded conditions, poverty, and cultural alienation, account for much of the trouble. Emotional problems, intellectual deficits, and constitutional factors contribute their share, also. Despite all these components, however, most children start school wanting to learn. How can we help them remain interested and eager?

Perhaps the first thing we can do is keep alive or unearth the eagerness that the very young possess. Looking at toddlers in the park or children in the first years of school, one is struck by the faces—bright-eyed, alert, awestruck, tense, or bewildered as the case may be. The majority show signs of avid curiosity and eagerness to explore. They look wide-eyed at blocks, sand, scissors, paste, pencils, letters, or books. However, the higher up in the grades one goes, the more apathy, callousness, and disinterest are apparent. Those attributes are particularly true of those who fall behind. They have been out of step so long, they have failed so often, that they are lost. They resent their failure at the same time that they are resigned to it. Can we rescue them from this morass? Even more important, can we prevent its occurrence?

Let us examine the way in which children develop this creeping disinterest through the grades. Children are supposed to learn a body of information that educators and others deem necessary and beneficial. If a gap remains between this information and the children themselves, learning often lags. Educators may then select alternate methods and plans; they may try to make learning more pleasant or they may prefer to use strict disciplinary measures in the "child's best interests." Instances can be cited to prove the success or failure of any of these approaches, singly, or in combination. But whenever all children are held to the same standard, some are bound to fail. Is this result inevitable?

If we reject the lock step and truly believe that man is born with a thrust toward growth and self-enhancement,[1] then several implications follow which may prevent failure. First, we assume that, given the freedom, children will choose to know and to grow. We do not have to insist that they fulfill requirements, comply in class, and do our bidding. Instead, we depend on their wish for knowledge and competency. Rather than juggle the system so that the children do what we think best or manipulate lessons to entice them into meaningless exercises, we try to grasp what the child is about, help him extend his horizons in productive ways, and speed him along the road to greater discovery. Right and wrong are usually the least of such learning; the joy of the process replaces stereotyped standards. This method allows children the chance of finding their place and becoming strong from their sense of contribution and collaboration.[2]

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[1] Association for Supervision and Curriculum Development Yearbook, Arthur Combs, Chairman. *Perceiving, Behaving, Becoming*, Washington, D. C., 1962.

Secondly, if those who teach, trust and respect themselves as well as the children, success with minimum difficulty usually occurs. If we trust children, we are confident that they will develop as fully as they can. We expect them to learn and absorb the information around them unless something is radically wrong. We expect them to progress as fast as they can. They need only a reasonable amount of guidance to understand books and other learning material. Children who learn in an atmosphere of trust and respect rarely lose their excitement for learning. When a child becomes enamoured of a story,[3] like the boy Sandy did, and cries: "I can't stop here; I've got to finish it," we know that he is on his way. When we hear another boy say after seeing a title of an article *Colored Snow*,[4] "Oh let me read that; I'm curious about that one," we know that he has found out how reading can expand his world. He's reading for knowledge, not for scores, to please others, or out of fear, but because he's entranced.

Thirdly, if teachers have faith in a child despite his learning difficulty, they can reach him. When a child feels that he is really valued for himself even though he has failed, he begins to experience renewed hope. Through mutual collaboration and understanding, he gains another chance to prove that he can become competent and worthy in his own way.

How can we apply this in a regular classroom? First of all we need to deal with real problems wherever possible. For young children this means making such things as weather equipment that really works or motors than can run. For older children it means dealing with the social, vocational, and personal conflicts that they face. As Roger puts it, this attack allows "the pupil at any level, to be in real contact with the relevant problems of his existence so that he perceives problems and issues which he wishes to resolve."[5] We all know that when we really want to find out, we will stop at nothing. We have all seen youngsters work at something by the hour when they wanted it; we have even seen embittered high school students begin to profit from school when they have their studies integrated with a half-day work program that means something to them.[6] There is no real motivation problem if we direct pupils toward actual rather than trumped up learning experiences. Indeed, under such conditions, we have difficulty getting them to go home after school!

Secondly, it helps if we view the classroom as a place for gathering resources for the pupils—"not as guides, or expectations, or commands, or impositions, or requirements,"[7] but as aids to discovery of useful knowledge and concepts. Besides the books, maps, audio-visual aids, and the like, the teacher himself, along with any specialists or people in the community, would be a primary resource. This approach turns the classroom into a workshop rather than a factory.

Does this sound like idle idealism? Perhaps, but reports indicate that teachers and pupils flourish under such procedures.[8] Not only do they learn but they seem to retain their love of learning. Learning in school comes as naturally as learning to talk.[9] Just as an infant learns through looking, tasting, and exploring; just as he imitates sounds and learns to interpret the world around him, so he will continue to learn as he gets older. And just as no one worried about the number of words that he learned to speak per month, no one worries over the number of books "covered" per year. As long as the children are examining meaningful, constructive concepts in relation to the world, their teachers find that they grasp subject matter and skills with relative ease. Of course if some children display deviate development and cannot talk or learn in the usual manner, they are exceptions that need special investigation. But on the whole, learning should proceed as easily and naturally as language development.

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[2] J. Bruner. "The Growth of the Mind," *American Psychologist*, Dec. 1965, Vol. 20, No. 12, pp. 1007-1017.

[3] In reaction to the story "Treasure Under the Sea" by F. Berres, *et al.* San Francisco, Cal.: Harr Wagner, 1959, p. 22.

[4] C. Stone and C. Grover. *New Practice Readers*, Book D, St. Louis, Mo.: Webster Pub. Co., 1963.

[5] C. Rogers. *On Becoming a Person*, Boston: Houghton Mifflin, 1961, pp. 286-295.

[6] Gladys Natchez. "Are Toughs Teachable?" *Elementary School J.* Vol. 65, No. 4, January 1965, pp. 198-205.

[7] C. Rogers. *On Becoming a Person*, Boston: Houghton Mifflin, 1961, pp. 286-295.

[8] Gladys Natchez. "From Talking to Reading *Teaching*, Scott Foresman, 1962, Part III, pp. 146-190.

[9] Gladys Natchez. "From Talking to Reading Without Really Trying." Speech delivered at Manhattanville College for the Montessori Training Program, 1964.

If this is true, why do so many of us raise our eyebrows when we think of running schools this way? Why is it that we feel that teachers must follow manuals, lesson plans, and syllabi exclusively? Why do we consider it all important to cover the curriculum in entirety and adhere to the best methods? In one school district, for example, where a teacher trusted and respected his pupils' ability to think and work for themselves, many members of the community became outraged because some pupils began questioning current government foreign policy. Even though the teacher wished them only to gather the facts and draw their own conclusions (he allowed no irresponsible propaganda), parents were up in arms. It takes courage to allow people to hold their own views and to grow according to their own precepts. Sometimes we do not have such courage.

Perhaps, also, it is because we are afraid to trust ourselves and our children without adhering to a master plan. Perhaps we think that education will become too haphazard. After all, how can children know what is good for them? Can we allow them to choose what they learn?

Ironically enough, however, children *do* choose what they learn whether we are aware of it or not. Although they do not always learn what we plan for them, they learn. When school is meaningless for them, perhaps they learn that it is useless to try, that it is dangerous to grow up, that it is easier not to try than to try and fail. Or they may learn that it is better to be first among the lowly or that they are not good enough and do not deserve success.

If in the end they are convinced of their worthlessness, if they become too fearful or too angry to hear or see what is offered, they become alienated from anything connected with school.

Can we still renew love of learning when this attitude occurs? It depends. It depends on how much we believe that we can. It depends on how much faith we have in children's innate surge to continue their growth despite all sorts of interfering conditions. If we feel hopeless, the children will feel hopeless, too. But if we are willing to try again, they usually respond to our optimism.

The pupils who attend the City College Educational Clinic frequently provide encouraging examples of such growth. They come to us discouraged and defeated. Yet they often react dramatically to reading instruction which raises their hopes about themselves and makes them feel worthy. Their tutors, who are graduate students being trained in the college remedial reading program, are encouraged to help them gain genuine pleasure from books and gather information for its intrinsic value. This goal is not always easy. We find that the more we make subject matter come alive through historical novels, biographies, folk tales, simplified classics, experiments, magic, and other meaningful material, the more engrossed the children become. When they see how their lives relate to the reading matter, they work diligently and struggle harder to overcome their handicaps. When they recognize that despite their poor achievement we consider them worthwhile individuals, when they realize that we expect them to make progress, they perk up. As the tutors learn to look at the children in a new light and as they begin to understand and respect them, the tutors change too.

One morning, for instance, a tutor was working with a fifteen-year-old Chinese American youngster reading at sixth-grade level. He had just completed a comprehension exercise and his tutor was questioning him on one response which must have been in error. When the supervisor walked in, she did not know the content of the exercise. All she heard was the tutor saying, "Do you leave the door of your house open when you go out?"

"Yes," he answered.

"You *do?*" was the astonished rejoinder. The supervisor interrupted at this point asking the youth whether he lived in a house or an apartment. (He travelled from the Bronx to our Clinic at 135th Street in Manhattan.) To their amazement he said, "A house." He went on to say that there was quite a colony of homes in the area and that many people left their doors open. He claimed that he locked only his closet door to prevent his brother from messing up his models and property.

A discussion ensued, and William listened to the difference between answering questions purely on the basis of one's own knowledge and answering with regard to the information offered in an article. His answer was accepted as appropriate from the former point of view. Then he thought about what the author had stated and realized the difference.

Had we just treated his answer as incorrect, we would have neglected understanding why and how the boy approached the problem the way he did. Had we doubted the validity of his own statement, we would have shown that we didn't believe him, that we had little respect for his opinion, and that he had better learn from us what was right. Worse, he would have learned once more that he could not choose answers correctly, that he was inept and stupid.

Another child was reading an exercise[10] which described how to pluck the inside tine of a fork with a knife. It stated that the fork will not "sing" when it is plucked in the air. Only when the fork handle is placed upright on a table will it "sing." Did you know that? Well, Jeanne, a fifth grader at the Clinic didn't. And she didn't believe it either. So when one multiple-choice item in the exercise stated: "Making a fork sing could be called

a) a joke
b) magic
c) an experiment
d) a trick

Jeanne chose "d) a trick." She explained that of course it was a trick; she didn't care what the answer said. The tutor asked if she would like to find out for herself. Then she could notify the company if the key was wrong. She agreed with enthusiasm. When she followed the directions, both she and her tutor were delighted with the result. They found out that the fork made only a dead noise when in the air. Not until it was held upright on a table did it "sing."

"It *is* an experiment, not just a trick!" exclaimed Jeanne, her eyes glowing. She learned the best way of checking an answer. The tutor did not have to urge her to go back to the material and read it again. She did not have to look for her mistake. She not only recognized her error but she learned a bit of information that she treasured. She has since told us that she showed this "experiment" to all her family and friends.

Naturally, we cannot always proceed the way that we did in these examples. There may not be time or we may not have the facilities. But, on the whole, we find that we are apt to be most successful when we appeal to children's innate wish to find out and to improve and when we allow them the freedom to remain inquisitive and to expand. They show us day after day that given the slightest hope they will put forth additional effort and try again.

In whatever way we can, we try to help the child evolve rather than stifle him by pushing him into a preconceived mold. It is true that we often make compromises; it is true that we cannot always allow as much freedom as we would like because we ourselves and our situation are limited. We often settle for less than we wish, but we keep seeking ways to crystallize the child's unique and special possibilities and to nurture his feelings of self esteem.

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[10] SRA Reading Laboratory, Don Parker, High School Edition, Science Research Associates, Chicago, Ill., 1957, Olive, No. 11.

C. SECONDARY LEVEL

1. High School Reading for the Severely Retarded Reader

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"THAT THERE IS the best book written! And you know what else? It's the first book I ever read from start to stop!"

These were the words of thirteen-year-old Butch. These were amazing words for him to say, for three short semesters before Butch had been identified as a potential dropout. He had reached—age-wise and promotion wise—junior high school with problems bigger than he was. His attendance for the past two years had been very irregular. He had bragged that men didn't need "book-learning"—and then he had become one of the silent ones in the classroom, offering no problem but just an indifferent "I don't know" to any question or just one of those who stoically sit and wait until enough birthdays have passed so that they can legally be released from the confines of the classroom. What else could he do? He couldn't even read!

When he walked into the special English class, he made a bargain with the teacher. "I won't bother you none if you won't try to make me read."

What can be done for these young adolescents? They are caught in a school where 80 per cent of the learning is based on reading. They are faced with a world where job interviews are often dependent upon a high school diploma. They are confronted with technological changes in jobs, requiring three or more retraining periods during a man's productive years. Yet failure with books and with the usual procedures in reading have resulted in complete withdrawal from reading. What can be done for these young people?

Try a New Attack

Only one thing is possible—try a new attack. And that is what Butch's teacher did. In fact, this approach is the big thing we have learned in three years of special classes which have been formed to study this problem.

First, the teacher reads aloud a little each day. It may be a humorous poem, a tear-jerking short feature story from the newspaper, a joke, or riddle—anything interesting enough to capture the pupil's attention, short enough to hold interest, and different enough that the students would respond to it.

Next, she planned work which these pupils could do—and, do well. Success was a new and exciting experience for these pupils. So, success was built into these programs. Nothing was finally presented as an assignment to the pupils until enough background had been provided that the pupils could complete the assignment satisfactorily, meaning perhaps that several experiences would be provided in order to build the necessary conceptual informational background which could insure understanding. Frequently this planning included a field trip, a motion picture, some film strips, slides, bulletin board pictures, and newspaper or magazine articles. Always, much work was done on vocabulary, for without an understanding of the concept represented by both the spoken and the written word, the culminating lesson and assignment would result in confusion and frustration for the learner. We learned that these special pupils must be so immersed in the necessary vocabulary and the needed experiences that these become a part of the learner's very being.

Include Reading Skills

But what about reading instruction *per se?* Until the resentment toward books had been overcome, few books were used by the pupils. Reading in other formats was substituted: experience stories, kit-type materials which were brief and interesting, newspapers, directions for their hobbies, film strips on a controlled reader, and paragraphs or exercises on a transparency. Frequently, the tape recorder was used to develop listening skills and to assist the severely retarded, stumbling reader to acquire correct phrasing and help with difficult words.

Memory work, particularly of good poetry, did much toward increasing vocabulary and improving phrasing and intonation. This progress in turn built reading comprehension and led to more fluent oral and written language. Here, the erasure technique for teaching poetry was used, making this activity a most pleasurable one. Again, the tape recorder was used to record the choral reading of selections. Pupils became quite involved as they listened to themselves, discussed their performance, and made suggestions for improvement. Here, records were frequently used to show pupils how a professional interpreted the same selection. It was most gratifying to hear the lively discussion which frequently followed such a comparison!

Finally, the teacher had to be most flexible. When the students came into class complaining that they could not remember their history lesson or could not understand their science book, the teacher put aside her own plans, for the moment. This hour was the right one to teach these pupils how to read and study another book. This day was the time that she could show them that the many days they had spent in "guessing what this new word meant by reading the sentence" was to show them how to gain meaning from context in other subject areas. This day was the one to show pupils how to apply in another context what they knew about main ideas and supporting details. So this day was the day the teacher had long awaited: the day her pupils realized that they were making real and substantial gains in their reading ability and that they really could read some books!

Are these suggestions "unorthodox" according to the established techniques for teaching reading? Perhaps. But no one can build a lasting superstructure without a good foundation. The teacher must first understand that all pupils who have failed to learn to read up to their own expectancy level (mental age –5 will yield the grade-level expectancy) have a learning problem. For many, this deficit will be an experiential-conceptual-information one which must be removed before even the brightest pupil can function up to his innate potential. To overcome this deficiency the teacher must literally saturate the pupils with meaningful experiences and mediate so effectively that permanent, well-understood concepts will evolve. Next, she must use, for all, a multi-sensory approach which will involve the pupils through sight and sound, using as many of the audio-visual aids as are available or as can be devised. She will involve pupils through the tactile and the kinetic senses. This practice will involve much speaking and much writing. Finally, she will involve listening—listening to class discussions, to tape recordings, to records, or to the sound track on a film. She will use listening exercises to develop the pupils' abilities to differentiate between sounds and to reproduce sounds correctly. She will, at last, involve critical listening skills to develop listening-thinking power.

Finally, everything the teacher plans must strengthen the relationship between reality, the spoken word, and the written word. For only as these become integrated within the pupil's mind can true reading occur.

Materials Necessary

What must the school provide? First of all, it must provide a teacher with interest, empathy, and insight; next, audio-visual equipment and materials which will enable the teacher to use many approaches to develop a single, wanted concept; third, an abundance of reading materials: books, magazines, and kits appropriate to the ability and interest-level of the pupils; and finally, a counselor who can assist in testing and in conferring with the pupils.

Mental Health Aspect

How does this program of reading carried on in the English classroom assist the counsellor?

1. Success, built into the program in small, manageable steps, helps to destroy the defeatist attitudes of the pupils. The teacher, using praise and encouragement in a carefully structured environment, must balance adequate challenge with success and recognition. To get pupils who are inured to failure to believe in success is a difficult task.

2. As the defeatism diminishes, a sense of personal worth increases. Since

a good self-image is necessary to achievement and to general life adjustment, this rise in ego usually results from enjoying small successes. Butch, who had never read a book, first wanted the teacher to bargain with him—he would cause no trouble if she would not ask him to read. Then one day in the library, backed with months of intensive work designed to increase reading ability and faced with a stack of gaily-jacketed books, he wanted to know—"Can I read one of these now, maybe?"

"This is one I have been wanting you to read. It is about a man—independent like you are—who was shipwrecked. You'll really like this book," the teacher said as she handed him a rewritten version of *Robinson Crusoe*. How many months had she waited for this question! Now Butch tells other boys casually, "I read this here book last week. It's real neat. You oughta read it, too." So he is gaining status with his peers as he develops his own self-image through success in reading.

3. Goal-setting which is at once challenging and realistic is almost nonexistent for these pupils. Yet going through life without a goal is like setting out on a journey without a destination. A harsh environment coupled with continuous failure in school-oriented work usually results in the pupils' feeling powerless to exercise any control over their futures. Therefore, they live for today only. The teacher must assist pupils in developing realistic, clear, definite, short-term goals. Then, as these goals are achieved, new ones must be set up. Only in this way can pupils learn that goals achieved are stepping stones to success. Only in this way can their level of aspiration be raised. But this gain can happen only if the pupils are taught in such a way that they *are* learning and achieving, encouraged at points of failure, and praised at points of success. But a conscious effort to widen their horizons must be made.

4. Our society holds tenaciously to certain values that are not likely to have been assimilated by disadvantaged pupils. Without these values, pupils frequently encounter ridicule or rejection. More seriously, they may run into problems with our laws which reflect these values. Respect for personal and property rights of others, respect for law and authority, love of country, and understanding of citizenship responsibilities can be structured in many of the activities for these pupils. Skillfully-led classroom discussions, carefully-planned classroom experiences, and well-selected reading are effective ways for building these values with pupils. Society expects the schools to inculcate these values into today's pupils so that tomorrow's citizens will perpetuate and improve our heritage.

Summary

So, to teach the severely retarded reader in the classroom situation, try a new approach. Get really acquainted with each pupil so that you can know his potential and his needs. Recognize the voids in his educational background and plan for the reteaching of these skills or concepts.

Plan a variety of ways to teach any single item. This method is necessary for many reasons. These pupils have an extremely short span of attention; therefore, several approaches must be available to provide an adequate amount of drill. Also, different pupils learn in different ways. Johnny learns only through the kinesthetic sense; Judy learns only by seeing; Billy learns only by hearing. All people learn by doing, so all must be involved in the way they learn best.

Appropriate materials must be available. The sixteen-year-old pupil who struggles with a fifth-grade reader cannot cope with a tenth-grade world history book. Adaptations must be made of the materials; backgrounds must be developed in pupils. Many high-interest books must be readily available to encourage much independent reading.

Teachers must try a new attack. If the phonic approach to reading fails, they must try the sight-word method. If both have failed, then they must try the kinesthetic. An eclectic approach will be the appropriate one probably, and must be tried along with periodicals, kits, and experience stories. Then, teachers may let pupils return to books when success is assured.

Special, small classes must be provided so that the slow-learner is not dominated and confused by brighter pupils who travel at a fast pace. Also, he must not serve as a drag to hold back and bore his more advanced peers.

Finally, the English program provided for him must be a broad-based language arts course. Although the course must be reading-oriented, it must also involve the pupil in listening and in writing and in speaking. It must build needed background, acceptable attitudes, and needed skills.

We have the money. Many materials are currently available, and more are in the offing. We have the pupils who have great needs. We have the researchers and the experimenters. But the teacher is the key to learning. If we meet the challenge of these high school retarded readers, we will do so because of teachers who have insight, inspiration, and imagination; who have empathy and understanding; who can bring together in a classroom research, pupils, and material, and produce the desired end product: responsible citizens for tomorrow.

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2. Reading Guidance in Departmentalized Programs

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MEETING AND ADJUSTING to a continuous series of problems is a normal characteristic of youth. At each level of growth, these problems become more complex and students become increasingly adept at solving them. With careful guidance from parents and faculties, each student at his own level of development encounters satisfying opportunities to set his own goals, to make his own decisions, to measure his own progress, and to understand himself better. Some students lacking this wise guidance are faced with special problems which they cannot resolve independently, so they must receive help from guidance specialists.

Reading guidance assists each student to understand his relation to reading and helps him to achieve greater satisfaction and success in using reading skills efficiently. For maximum results, each member of the faculty is involved in the reading guidance of students in the departmentalized program. The counselor, the classroom teacher, and the reading teacher work cooperatively to develop the well-adjusted student who is a good reader.

The Role of the Counselor

Guidance in reading really begins with scheduling students in classes geared to their needs. A careful study of the records of each student requires time but reduces the number of mistakes in scheduling. This perusal of the test scores helps determine whether a freshman student reading at a sixth-grade level shall be scheduled with a class of slow learners or enrolled in reading to help him enter a class progressing more rapidly. For example, a few years ago while enrolling a sophomore in one of our schools, a counselor noticed that the student was a non-reader with an IQ score of 60 on a group test. This guidance specialist then studied the records thoroughly. During the student's eighth year, his IQ score was listed as 85 and during his sixth year in school it was 95. A Benét administered during his fourth year had resulted in a score of 112. A WISC was administered, resulting in an IQ score of 102. Evidently the boy's scores on group IQ tests had regressed because the reading had become increasingly difficult.

This student was referred to the reading teacher. Since the boy was highly motivated, he did learn to read and was able to be graduated with his class.

One important role of the counselor is this identification of able students who are deficient in reading skills. Some educators are willing to accept a low IQ score as an excuse for poor instruction. Helping students and teachers to understand themselves and each other is an important task of the counselor. This task may involve suggestions for curriculum changes as well as conducting research and follow-up studies.

In addition to proper scheduling in subject-area classes, the counselor must also be alert to schedule students into the appropriate reading classes. Most students, including poor, average, and above-average readers can profit from specialized reading instruction, but not in the same class. The goals and the needs of each are different, so the instruction and the guidance must vary also.

The Role of the Classroom Teacher

The first and probably the most important responsibility of classroom teachers is to provide a learning atmosphere where students can feel relaxed and encouraged to do their best. Instruction is organized to develop readiness and background for the subject, to provide sequential development of the content, to provide aids for learning, and practice to insure retention of necessary information and skills.

Second, teachers of all subjects have the responsibility to provide some guidance in reading. They should see that their students know the vocabulary and can use the study skills necessary for success.

Third, subject-area teachers should provide guidance in the kinds of supplementary reading experiences and specialized library skills required in their courses. This responsibility is becoming more complex as many new materials are being developed. The present trend toward development of learning centers equipped with various programed courses provides for guidance toward independent study if appropriate assignments are made.

Fourth, all teachers should be alert in the identification of students who lack necessary reading skills, so they may be referred to the reading teacher at once. For example, a history teacher noticed that a boy in his freshman class discussed well any information he learned orally but was not progressing in his work. His records indicated that he had a low IQ, but the history teacher was convinced that this score was not accurate. He referred the boy to the reading teacher for further testing. The WISC revealed an IQ of 122. The boy entered the reading class and soon proved that his teacher's classroom diagnosis of ability was correct.

One science teacher was not as alert in identifying student needs and abilities. He sent one of his juniors to the principal's office regularly because he wouldn't study his lesson. When the principal finally asked the student the reason for not having his lesson, this answer came, "I cannot read my science book. If I can find a third or fourth-grade science text in the library on the lesson topic, I study. Some days I cannot find the topic at the library so I cannot study my lesson." The student was placed in a reading class and did make progress though it was too late in his high school career for him to make up for the knowledge he had missed in earlier years because none of his teachers had recognized that he had reading problems.

The coaches in our schools make many referrals to the reading classes. They know that an athlete who can read and who knows how to study will probably be eligible to participate in sports all year.

The Role of the Reading Teacher

The role of the reading teacher involves many phases of the student's learning process. The basic steps in improving reading skills are similar for average, below-average, and above-average readers but the organization of the program for each has many variations. The steps include preliminary testing to diagnose needs, careful planning to provide appropriate instruction, and continuous evaluation of progress.

Attitudes usually improve and personality problems tend to disappear as the student becomes aware that the reading program is geared to his individual needs. He observes that tests are administered to identify needs and that instruction is tailor-made to improve weaknesses. He notices that the teacher accepts him as he is and is not shocked by low scores in a reading test.

Each student confers with the teacher to discuss his scores, to set goals, and to plan ways to improve his reading achievement. Time is spent in making study schedules and in setting up immediate and long-range goals. Students realize that extra time devoted to reading improvement during a semester will result in a saving of time all through their lives. They also learn that better study habits and improved reading skills will reduce study time and will improve academic grades.

Diagnosis includes a review of other areas related to the reading process. Academic potential is assessed. The student's visual and auditory acuity are tested. The purpose of the reading diagnosis is to lead to the development of a helpful program for the student. It should reveal how the development of reading ability is related to the personal goals and values of the student.

Interesting materials at the appropriate levels are selected to develop the skills in which deficiencies have been identified. Motivation increases as students record their own scores and are aware of daily slight increments of progress. In classes for below-average readers this improvement may be the first time the student has met success for a long time.

Charts to show improvement in specific skills are as motivating for the accelerated reader as for the poor reader. Organization of materials and graphs to record progress are provided in many texts or can be devised for use with other materials.

Grades in other classes do not automatically improve after enrollment in the reading class, especially if the student is reading several grades below grade level. The reading teacher and the student may notice marked improvement, but self-satisfaction requires passing grades in other subjects, also. This guidance and instructional role of the reading teacher is not easy in cases where poor attitudes and poor study habits have become habitual.

Direct teaching to improve reading in specific subjects often is the solution to this problem. Reading teachers help students improve their attitudes, their grades, and their self-confidence by teaching students such subject area skills as to:

1. Use efficiently the parts of a book and to interpret the maps, charts, and illustrations in it;
2. Apply the study skills most appropriately used for each subject;
3. Pronounce, define, and use in sentences the words from the weekly spelling lessons;
4. Recognize and use the parts of speech;
5. Understand literary selections from the English class and related vocabulary and terminology;
6. Use the SQ3R method of study; and
7. Set purposes for reading and practice reading for specific purposes.

Encouragement of reading of library materials for information, for recreation, and for personal needs has guidance values, also. The secondary school student who doesn't read lacks much information about his own thoughts and feelings and also about those of others. Will Rogers once said, "Everyone is ignorant only on different subjects." The person who doesn't read is ignorant on many subjects.

The reader learns so much about human relations in his own family and throughout the world . . . facts that he would learn in no other way. Any device that motivates the student to read widely helps him to develop into an independent, thinking individual. He may be able to solve or to be reconciled to his own personal problems if he reads about similar situations. Definite guidance to a specific book may help a student see how others have learned to live with or have overcome similar problems.

For example, an impending divorce in the family may be very tragic to the teenager but by reading *Sundays from Two to Six* by Virginia Abaunza, he may gain some insights and be able to view the event with less emotion. All students will gain in understanding of the problems of minority groups and will be more willing to change social attitudes by reading *Snowbound in Hidden Valley* by Holly Wilson, a story of an Indian girl; *Blue Willow* by Doris Gates, a story of a migratory worker's daughter; and *New Boy in School* by Justus May, a story of a Negro boy.

By reading, students learn about the required training and the many responsibilities of specific vocations and professions. This knowledge helps them to make intelligent, independent choices. One freshman with a low-average IQ and without industrious habits had planned to be a doctor because his grandmother desired it. Influenced by some of his outside reading, he has decided to be a chef. Grandmother will be just as proud of him when he prepares gourmet meals for illustrious patrons.

The final test at the end of the reading course may indicate that the student is not yet reading up to his potential but that he has made progress. Most students have learned techniques, the use of which will help them continue to improve academically. Some may need to plan additional instruction during the summer session or a refresher course at a later date. Each better understands his own limitations, capabilities, and goals.

This improvement in reading is definitely related to guidance. Some emotional and personality problems disappear entirely when academic success is experienced. Students improve their self-image, acquire increased ability to make mature adjustments, and develop responsibility for their own progress.

When students with severe reading and personality problems are referred, reading teachers have been known to remark, "What do people expect of my reading class—miracles?" Reading teachers cannot perform miracles but in some cases the results can almost be classified as such.

I remember a defiant freshman boy brought to the reading teacher by a guidance-minded principal one day in October. The principal explained that Paul had been in trouble several times, had an unsympathetic, domineering father, and had this one last chance to stay in school. He asked the reading teacher to enroll the boy but said she would be entirely justified in refusing to admit this student with serious emotional problems.

The reading teacher accepted the challenge and the result was really a miracle. By May, Paul had improved two years in reading ability and had conducted himself so well that all his grades were improving. That summer he asked to come to summer school, which he did attend. He is now a well-adjusted, achieving student, and will be graduated with his class in June.

One of the rewards of teaching reading is to help students overcome problems and achieve success in school and beyond formal school days.

Summary

The goal of education is to make guidance unnecessary. The student must develop from dependency on others to self-reliance. He must learn to analyze his problems, his strengths, and his weaknesses. As he accepts the responsibility for self-appraisal and self-direction, he gains in maturity and self-confidence.

Parents and the entire school staff must cooperate to provide the kinds of experiences that will help each student achieve his goals. The administration, the counselor, and the teachers, provide the atmosphere, the curriculum, and the learning activities which influence the attitudes and the reading achievements of all students.

D. COLLEGE LEVEL

1. Guiding Students Needing Help in Reading

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THE READING NEEDS of the average college student are great; they are much greater than the public and college administrators realize. Although surveys indicate that there is a large increase in the number of new college reading programs, we should not be lulled into believing that these courses are providing students with the kinds of help that they need to improve their reading.

A critical review of reports of college reading programs and personal observation of some lead to one inescapable conclusion—only a comparative handful of college reading programs are functioning in a manner that meets students' needs. Programs need to be sufficiently flexible to give students the kind of help they need at the time it is needed. In general, reading instruction in college and adult reading courses are about where they were in 1962 when Smith *(5)* called attention to the wide variety of gadgets, methods, and materials that were being used for instructional purposes. She said one generalization could be made, "Participants in the courses do increase in speed and often in comprehension, but almost always it seems there is an increase in speed without reducing comprehension." (5, p. 183)

How Well Do College Students Read?

Most of you are aware of studies like those of Halfter and Douglas *(2)*, Carter *(1)*, and others *(4)* that show there is an urgent need for helping college students to improve their reading skills. Do college students recognize they are not so efficient in reading as they might be? The answers one receives to this question may vary greatly from one college or university to another and within classes of the same institution. At Oregon State University, for example, all students preparing to teach in secondary schools are required to take Methods of Reading for Secondary Teachers. Each quarter these students are asked to anonymously rate themselves as superior, above average, average, or poor readers. They likewise rate themselves in spelling. All of these students are either upper-division or graduate students. According to their own rating during the past ten years, approximately 10 per cent rate themselves as superior readers; 26 per cent believe they are average; 62 per cent, above average; and two per cent feel they are poor readers.

Upper-division students tend to rate themselves as being much better readers than is indicated by scores from the *Diagnostic Reading Tests*, Form B *(7)*. According to the scores made by a random sample of 792 students, when compared with college freshmen norms, the group mean for vocabulary was at the 52nd percentile; comprehension, at the 57th; and total comprehension was at the 52nd percentile. Individual scores range from the first to the 99th percentile. *(3,* p. 110)

It is interesting also to compare the self-ratings of the upper-division students with those of incoming freshmen. Since all freshmen are required to take an entrance examination, it was a simple matter of having them answer a questionnaire on reading. During fall quarter 1960, 1961, and 1962 a total of 7,144 freshmen students, with the exception of approximately 1,000 transfer students, rated themselves as to the kind of reader they thought they were when compared to other college freshmen. Four hundred and twenty-two reported that they were poor readers; 4,067, or 57 per cent, said they felt they were average; 2,412, or 33 per cent, said they were above average; and 243, or 4 per cent, judged they were superior.

These same students were asked if it would have been beneficial to them if their high school teachers had given them help with improving vocabulary, reading for a purpose, comprehending reading materials, locating new and different materials, doing study-type reading, and adjusting speed of reading according to difficulty and newness of materials. The students' answers are revealing and should be considered when developing objectives for college reading programs. An overwhelming majority felt a need for further instruction in all areas previously mentioned.

Eighty-three per cent felt their greatest need was in improving vocabulary; 74 *per cent, comprehension of materials;* 70 *per cent, study-type reading;* 66 *per cent, reading for a purpose;* 62 *per cent, adjusting speed of reading to different reading materials;* and 56 *per cent, locating materials.*

The preceding evidence clearly demonstrates that most of these students' needs would not have been met except in a minimum number of college reading programs.

Further information about the kinds of help college students need may be gleaned from those individuals who are referred to the remedial reading clinic by their instructors and other students. Evaluation and diagnosis of such students reveal that only infrequently does a student know how to set purposes for reading a chapter or an assignment in his textbook.

"Effective reading" courses in both college and junior college often fail to improve students' reading efficiency because the teachers do not realize that many of the students lack basic reading skills. Our records show that from 20 to 40 per cent of the college students who come to us for help in reading have problems with word-recognition. They also have difficulty in locating words in a dictionary, concentrating on reading, varying their rate of reading, and knowing when to skim and when to read critically. Until they have mastered these basic skills, exhortations to speedup their reading and to study harder will do little more than compound an already vexing problem. Not one student in fifty has any planned method of study other than that of underlining sections of his textbook, reading, and rereading his assignments. When these kinds of students are asked *why* they read their assignments, they generally say, "Because the material is assigned," "We might get a quiz on it," or "I always read my assignments so I can keep up with the class."

Steps for Improved Guidance in Reading for College Students

Several suggestions that appear to be evident for improving college reading programs follow:

First, only adequately prepared reading teachers should teach college reading. If a workbook or mechanical device were all that were needed to improve students' reading, we would have few inefficient readers. There is no question that even the best of materials are of little value unless they are properly used. The college student who is an inefficient reader is usually unable to help himself without proper guidance by a competent reading instructor.

Second, attempting to teach all inefficient readers with the same approach and without adequate diagnosis is not only a waste of both teacher and student time but it may also prove to be harmful. Evaluation and diagnosis of each student's strengths and weaknesses are prerequisite and vital to the improvement of his reading.

Third, treating symptoms instead of causal factors is a common error among inadequately prepared reading instructors. Students and teachers, for example, often agree that the student's rate of reading is too slow and attempt to remedy this symptom of inefficient reading by "taking in bigger bites of the material." Numerous instructors of college reading will boldly state they are "training students to take in whole sentences and eventually entire paragraphs in one eye-span." If there is one facet of the reading process that can be measured accurately and objectively, it is that of the number of words that one can see in one fixation. The best available research indicates that a maximum number of about two and one-half words can be seen at one fixation. However, it must be kept in mind that some students have all the necessary skills for reading more rapidly than they do but have developed a habit of reading everything at a very slow rate. These kinds of students are among those who need supervised practice to learn to adjust their rate of reading according to the difficulty of the material and their purposes in reading.

Fourth, most college students improve their ability to learn subject matter when they are taught how to study. Few students learn to study without some guidance. Oftentime, all the guidance a student requires may be given in a matter of two or three hours. Again, however, we should be aware that oversimplifying study skills or prescribing a rigid program for all students is not an answer to students' needs. Study skills should include teaching students how to follow directions, locate, select, and evaluate information, and to organize such information so that it may be used for improving the learner's knowledge.

Fifth, critical reading is best taught in subject-matter areas but when teachers and college professors fail to teach their students the techniques of reading critically, the reading teacher must give students guidance in this essential reading process. Critical reading is learned only from adequate, systematic, continuous guidance. To assume that college students are critical readers or will become critical readers without competent instruction is foolhardy.

In this discussion, we may have given the impression that few college reading programs meet the needs of most students. *Unfortunately, this conclusion is the case.* There is, however, a growing number of programs that are geared to the needs of students. Price *(5)*, for example, recently reported on the program at Appalachian State Teachers College where all freshmen are required to take a reading course. According to his report, students receive instruction in basic-reading skills, vocabulary development, reading comprehension, note-taking, reading a chapter in textbooks, and adjusting rate of reading.

Taschow at Central Oregon College is conducting a reading program similar to that at Appalachian State Teachers College. His report of a reading program based upon students' needs is included in this conference's Proceedings.

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2. The Role of the Reading Clinician in the College Counseling Center

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WHY IS THE reading clinician's role at the college level any different from the clinician's role at any other academic level? To answer this question, one must turn to the population served. Generally speaking, the college population does not have the basic reading skill difficulties that are observed at other academic levels. The reading problems at the college level usually involve the lack of proper study skills or a negative concept of their own abilities. This paper will attempt to identify the techniques utilized by the reading clinician in diagnoses and the procedures the clinician must be familiar with for overcoming diagnosed difficulties.

The population that the reading clinician at the college level encounters comes from two sources. The first source is students who are self-referred. Their motivation for referral can be classified into three general areas:

1. Low grade-point ratios: these are students who are on the brink of academic probation. They are generally in a state of despair; the counseling center is their last hope.

2. Speed reading: this group is generally achieving at an average or above-

average level; their primary motivation is to learn how to read more material in less time.

3. Professor's recommendations: these are students whom professors do not feel are achieving up to their academic potentials. Usually professors inform the students of the service provided by the center and recommend that they seek more information.

These three classifications come to the counseling center of their own volition.

The second source is students who are required to attend the reading and study skills program. These students are usually sent by the dean of the school in which they are enrolled. This group presents another type of problem. They could have any of the difficulties mentioned earlier, but these difficulties are usually compounded by the fact that the students are not there of their own volition and many times resent the position in which they have been placed.

Diagnosis

Diagnosis is a prime function in any reading clinic environment. Reading diagnosis is a creative dynamic process. A student's reading ability is a product of his total personality *(2)*. Therefore, to determine and alter the individual's reading abilities, the components of his personality and environment must be examined.

The first step is to determine whether the student has a reading skill difficulty or if the reading difficulty is a product of some other facet of the individual's personality. This answer is generally found in a screening interview. This step would involve a review of the individual's previous academic record. Many clues can be extracted from past standardized-test performances and previous trends in academic achievement. This record can be supplemented by conferences with various professors and by the individual counseling interview. If the clinician is schooled in counseling techniques, he can glean valuable information from the individual counseling sessions.

Generally speaking, students at the college level have mastered basic reading skills, the consensus being, if they have passed the college's entrance requirements, basic reading skills are apparent. The validity of this consensus is continually being evaluated through the reading diagnostic process of low achievers at the college level. This tenet is further supported by the fact that the majority of cases treated by the clinician at the college level are individuals who do not have reading skill difficulties.

Upon completion of the screening diagnosis, the clinician must then move towards pin-pointing reading difficulties. This step is usually done through supplemental testing and individual counseling interviews. The depth diagnostic process should cover the following areas:

1. Vision: no reading diagnosis should be attempted without a minimum visual screening test. This test could be accomplished by using a visual screening device.

2. The individual intelligence test: the total score on this test is an important facet of information, but the most important information obtained will come from sub-test patterns and from observations of the student's behavior. A critical evaluation of these two areas will give many hints regarding an individual's personality organization, his self-concept, and environmental influences on his abilities.

3. The personality inventory: both projective and paper-and-pencil personality tests can be used depending upon the skill of the clinician. Since an individual's reading ability is a product of his personality organization, the understanding of his personality characteristics will play a major role in the development of an individualized reading program to assist in further reading development.

4. Informal reading inventory: valuable pragmatic information can be gleaned about an individual's reading ability through such an inventory. Here is a case where the individual is observed reading in reality through the utilization of the textbooks and other materials that are used in the college classroom. Through close observation, the clinician will be able to gain valuable information about the individual and the way he reacts to the college classroom environment.

5. The standardized reading test: this tool again can supplement the information that has already been gathered. Through integration of the material gath-

ered, the clinician can get a fairly complete picture of the individual as he really operates and the individual as he perceives himself operating. With this information at hand, the clinician is in a position to develop an individualized reading program that will meet the basic needs of this individual *(5)*.

Development and Implementation of the College Reading Program

The identification of factors involved in unsuccessful college achievement and diagnosis of the causes of these factors are only a portion of the role played by the reading clinician in the college counseling centers. The next act is to provide the services for remedying an existing condition and preventing further complications. Generally speaking, programs of reading improvement at the college level involve the following areas:

A. *Reading Flexibility:* Many students come to the clinician with a desire to improve their reading rate. This situation always brings to mind *Alice in Wonderland.* Alice ran faster and faster, but when she stopped, she was right where she started. The reading clinician does not want to produce a bevy of Alices. In this situation, through small group or individual counseling, the clinician can assist the students in seeing that flexible reading is a mark of the efficient reader. No one should read all material at the same rate. The reader must first examine the difficulty of the material to be read, analyze his purposes for reading this particular selection, and then read at the rate that will satisfy his purposes. Within the framework of teaching flexibility in reading, the clinician can observe the inefficient reading habits of each individual. Through the elimination of these inefficient reading habits and the development of flexible reading techniques, students do improve their reading rates, but this result is a by-product of total reading improvement.

B. *Critical Reading:* Critical reading involves drawing upon one's past experiences to react to ideas on the printed page. Critical reading can be creative in that it can produce new insights for the reader. Gainsburg *(1)* suggests that critical reading does not sufficiently describe the nature of the possibilities of the higher level reading processes. Instead, he uses the term creative reading, reasoning that the reader creates "a richer article than the author ever intended—richer at least for the reader." Whether this level of reading is labeled as creative or critical or whether there is a difference in the terms is not the primary concern as far as the clinician is concerned. The role of the clinician is to get his students to draw upon their experiences and make evaluations of what they read—to develop an acute awareness that just because something is on the printed page does not make it a fact. The critical reader is spawned in an atmosphere that is conducive to questioning.

C. *Specific Reading Skills:* Occasionally, at the college level, the clinician will have a student who has progressed to this point academically but has not mastered certain basic reading skills. The majority of these students are helped individually. Either programmed materials are developed with the student meeting with the clinician at intervals or the student meets frequently with the clinician for individual instruction.

D. *Study Skills:* Students who have academic difficulties at the college level find that one of the primary factors causing these difficulties is their lack of study skills. It is the opinion of the writer that teaching study skills in the normal classroom manner is of little or no value. Students must gain insights into good study habits and be able to implement these study habits into their textbook, regular-class, learning situation. A dramatic example of how this ability can have an effect on a group of students took place with the freshman class at the University of South Carolina in 1966. The class was given a selection to read. This selection consisted of ten pages. The students were told that they would have fifteen minutes in which to read the selection. After five minutes, they were stopped. They were asked ten specific questions of which all the answers were found in the first two pages. The eleventh question was, "What is the general purpose of this article?" Not one student in the entire group could answer the question. The answer was stated in the last paragraph of the article, and the paragraph was introduced by the statement "The purpose of this article is . . ." This experiment brought rather dramatically to this particular group that even though they thought they had good reading and study habits, they had not learned how to survey and get an overview of what they were going to read or study. This group was eager to learn efficient study habits and worked hard at developing these habits.

No one can develop efficient study techniques unless he has a knowledge of such techniques and a pragmatic understanding of their values. The clinician can best accomplish this facility by having students implement a technique such as "SQ3R" in their study programs. These techniques can be taught effectively in small groups and by using the student's own textbooks. In this situation the clinician can demonstrate the value of organized study techniques.

Another important area of study skills is the study schedule. Anyone can establish an impressive study schedule, but only through self-discipline can a student follow a study schedule. Authorities seem to feel that the most valuable study schedule is the flexible schedule. (*4*) Of course, each student has to determine just how flexible his schedule will be. It appears that the important factor here is that each student must not set too rigid a schedule because he will tend to either ignore or become disenchanted with the scheduling process. Again, discipline to follow a schedule can only be developed through self-insight into the value of a schedule.

Efficient study skills are not the cure-all of academic difficulties, but if a student can develop efficient skills, his chances of success in college appear to be enhanced. Therefore, the teaching of efficient study skills seems to be one of the primary functions of the clinician in the college counseling center.

E. *Alteration of Self-Concept:* One of the interesting phenomena of the college campus is the student who has all the tools to be successful but whose negative self-concept prevents his success. Regardless of how many skills a person has, if he does not feel that he can do the job, his chances of success are very limited. The alteration of an individual's reading self-concept is one of the most interesting and challenging duties that the clinician will have to perform. The technique utilized will be dependent upon the orientation of the clinician. Change in self-concept seems to occur most rapidly through small group or individual counseling. Through this process, the student is able to gain new insights and is better able to understand his own strengths and weaknesses.

The implementation of the programs previously discussed is usually handled on an integrative basis. No one program is an entity itself. The purpose of separating them in this particular paper is for clarification. The individual and his personality are so complex that to separate these services in reality would defeat the purpose of the entire program.

Summary

The role of the reading clinician at the college level is very complex. To fulfill this role adequately the clinician must be a most unique individual. He must be trained in the areas of reading, psychological evaluation, and counseling theory and techniques. Plus, he must be a creative teacher and have a deep understanding of learning theory.

Total fulfillment of the role as described by the writer is virtually impossible, but this role is a challenge to the reading profession, a challenge to produce a product that will nearly fit the described model.

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CORRECTIVE TEACHING IN THE CLASSROOM

A. PRIMARY LEVEL

1. Prevention of Reading Difficulties

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READING SPECIALISTS have labored to develop good reading programs and to correct disabilities, but "One of the greatest sins of the educator concerns his failure to act to prevent disability." (*1*) Schools treat children "en masse," and only after a serious disability has developed, is the child identified and given special treatment.

Four facts are presently forcing us to consider preventative aspects: the large number of adult illiterates, the increasing number of remedial cases, the rising cost of remedial programs, and the traumatic experiences of the disabled reader.

The following practical suggestions could contribute greatly to the prevention of reading disabilities and could be implemented within the framework of present school systems.

Improved Teacher Training

In the vast task of both educating their students and teaching them "how to teach" teacher-training institutions frequently neglect or omit courses in the teaching of reading. A compulsory course, packed with content, observation, and practicum of the highest quality, should be instituted for every prospective elementary school teacher. Competent, well-trained teachers of reading in every classroom could prevent many disabilities.

Pre-school Parental Aid

Parents are eager to help prepare the child for kindergarten, but past and present customs have failed to utilize this aid. Schools could establish programs which enlist and guide parental effort to foster pre-school readiness activities: reading to the child, sharing discussions, predicting outcomes, traveling and visiting to develop concepts and vocabulary, and enjoying rhyming games. These natural activities could aid greatly in preparation for reading.

Improved Kindergarten Programs

Although good kindergarten programs offer excellent experiential background, there is need to provide specific training and practice in the particular skills needed in the reading process. We should develop the ability (1) to differentiate separate sounds in spoken words, (2) to visually differentiate and identify separate letters and word forms, and (3) to see relationships between letter forms and sounds of letters. Failure in this ability results in difficulty in relating sounds to printed letters and in relating sounds to words. Good worksheets which provide careful observation and visual discrimination are recommended. (*2*)

Studies by Wilson and Durrell have shown the importance of knowing the relationships between letter names and sounds for successful reading achievement. (*3*) (*4*) Stern and Gould report that this knowledge is an indispensable part of reading readiness. (*5*) It is also evident that children who show evidence of early disability are deficient in these skills. Therefore, it seems sensible to focus on these abilities as a major factor in prevention of disabilities and to teach them systematically.

It is not necessary to "rob the child of his childhood" to bring him to this point. It can be done easily by presenting several identical and common elements together and leading the child to discover and to draw the generalization inductively. But as Robison and Spodek have noted, children lack experience in naming, categorizing, and generalizing; they frequently lose sight of the discovery soon after it is made or remember it in some distorted form. (*6*) Therefore, the kindergarten teacher must help them to verbalize the generalization.

There is new evidence supporting a stronger position for structured pre-reading programs in kindergarten. Schoephoerster and others identified six instructional tasks of visual and auditory discrimination, specifically required in the reading process, which should be taught in a kindergarten-readiness program: (1) how to use spoken context as preparation for the eventual use of printed context as part of a technique of word identification, (2) how to distinguish letter forms from one another, (3) how to distinguish letter sounds from one another, (4) how to associate letter sounds and forms so that the perception of a letter or group of letters will prompt the recall of the correct sound or sounds, (5) how to use spoken context and letter-sound associations to call to mind words that make sense and begin with the sound that a given letter stands for, and (6) how to use spoken context and the first letter in a printed word to positively identify a word.

They reported that a formal readiness program teaching these skills benefited children of all ability levels with no evidence of accompanying frustration or emotional deterioration. (7)

A better kindergarten program would also identify cases of mixed or unestablished dominance and assist the child in gaining a sense of direction and orientation by consistent practice.

Screening Process after Kindergarten

One of the greatest errors in school reading programs is the assumption that all children will start formal reading in first grade. The only adaptation to individual differences seems to be in the rate at which each child is allowed to progress. This practise is educationally unsound. It results in serious disabilities and costly remedial programs.

One method of rectification would be to establish an intensive screening procedure at the end of the kindergarten year to identify pupils not yet ready for the formal reading program. These pupils could be placed in a vestibule class, not to repeat kindergarten but to be given training and practice in the specific areas of their deficiencies. Frequently these deficit areas occur in auditory and visual discrimination, language or speech patterns, and word knowledge.

Certainly no one tool would constitute the means of identification, but it would present a composite picture determined by data derived from (1) standardized reading readiness tests, (2) test of visual and auditory discrimination, (3) teacher observation, and (4) readiness checklists which include laterality, dominance, and orientation factors.

Children with specific deficiencies do not need "more of the same" but a concentration of particulars. The vestibule class, by providing "the particulars," could prevent many disabilities.

One relatively untouched area in prevention of disabilities is that of identifying the emotionally disturbed child before he starts the formal reading program. Carrithers found that children with emotional difficulties at the pre-school level have greater difficulty in learning to read and follow different learning patterns and that those with the greatest emotional difficulty make the slowest start *(8)*. Thus the early identification and provision for therapy to eliminate or reduce tensions could provide the emotional freedom to learn.

A second neglected area is that of identifying the neurologically impaired child before the formal reading instruction starts. The alert kindergarten teacher can detect symptoms and signs of unusual behavior and refer the child for neurological examination. If neurological impairment is present, then specific methods and techniques stressing multi-sensory materials can be used immediately; and the child need not fail with routine procedures first.

Another serious, false assumption is that all children can and will learn to read by the same method and approach. We give lip service to individual differences, yet schools adopt a basal reader or reading system and process all children through it in the same way. We know, for example, that phonics can be taught by an analytic or synthetic method and with a formal, functional, or incidental approach. It would be ideal if we could determine by pretesting which method and approach would be most successful with each child. That is, is there a constellation of factors about a child—mental age, chronological age, physical assets, personality factors—such that he learns to read more easily and successfully by one method and one approach? By which modality does he learn best—the auditory, visual, kinesthetic, or eclectic? Although the studies of Bear and others have opened the door to this untapped area, more comprehensive research is needed to yield definitive answers *(9)*.

January Identification

Probably the most important step in prevention of reading disabilities would be the identification in January of normal first graders who are struggling or failing to progress by the methods being used. It is neither necessary nor wise to wait until third or fourth grade. If present methods or approaches are failing, others should be investigated and tried.

These children should be re-screened to determine if any physical impediments are responsible. Retests for vision, hearing, laterality, orientation, coordination, and dominance would be in order. If these results are negative, then attention should focus on method.

Anyone who has tried to isolate methods realizes the difficulties involved because there is always some overlapping. But it is possible to teach several trial lessons, with emphasis on one method and a minimum of the others. One note of caution should be observed. The teacher should be certain that the learning tasks involved for each method are of similar or equal complexity. If they vary greatly in length, time, or difficulty, it will be impossible to evaluate the method.

Careful, objective evaluation of these trial lessons could indicate the method by which the child learns most easily. One commercially published test which attempts to do this is the Mill's Learning Test *(10)*. Although not standardized, it yields valuable information to initiate and guide the teacher's diagnosis of the child's reactions to various methods.

The teacher thus attempts to become acquainted with the child's assets and deficiencies, strengths and weaknesses to determine how he will best learn.

The logical step then would be to choose or adapt a method of instruction which would use the child's strengths. This procedure does not mean eliminating the area of weakness but rather avoiding it until a definite measure of success is demonstrated. The deficit areas can be developed later. If a child has strong auditory discrimination, it would be wise to stress a phonic method; if he has strong tactile ability, the kinesthetic method. Thus the method would be adapted to the child and not the child to the method, as is presently done. These factors could also become one criterion for determining "teaching groups" within the classroom.

Concentration on Concepts

Primary teachers who have taught the ideas and concepts involved in the reading materials, prior to actual reading, well know to what extent it aids comprehension. This fact has been effectively demonstrated in studies by Cantor and Almy *(11) (12)*. It occurs because the child hears the new vocabulary in a meaningful context first, acquires a "mind set" for the learning experience, and becomes receptive to the ideas of the content. Teachers could do much to prevent disabilities if they practiced this procedure more often.

Development of Polysemantic Words

Kindergarten and primary teachers could further aid in prevention of disabilities by developing the concept of polysemantic words. The kindergarten child who learns that "bank" means a wall of snow, a place to deposit money, a set of oars, etc., has less difficulty accepting and coping with the twenty different possible meanings of "run." In the sentence "There was a run on the bank," he will not be misled into thinking that the bank itself was running. These concepts should be developed as the child meets simple words, first in oral language, later in reading.

Summary

Prevention of disabilities could be facilitated if

1. All teacher-training institutions improved the quality of reading courses and made them compulsory for Elementary

School Majors;

2. Schools enlisted parental assistance in a positive, guided program for preschool children;

3. The specific auditory and visual-discrimination skills needed in the reading process were taught before the formal reading program;

4. The vocabulary and concepts of primary materials were developed prior to reading;

5. Children were carefully screened after kindergarten, to identify the emotionally disturbed and the neurologically impaired; (These children should be placed in a vestibule class for specific training suited to their needs in deficit areas.)

6. Children who were struggling or failing to make progress commensurate with their abilities were identified early in January or February of first grade;

7. Selective testing were done to find the cause of the disability and trial lessons were conducted to determine the methods and approaches by which each child learns best; and

8. Methods and materials of instruction were employed which were suited to the child's needs—to the modality by which he learns best and leaning heavily on his strengths.

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2. Detecting and Correcting Reading Deficiencies Day-by-Day

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TO DETECT READING deficiencies of children in the primary grades requires an understanding of what to expect of this age child. It also requires a knowledge of what reading skills should be taught and when to teach each skill as well as a keen observation of each child's needs and a knowledge of how to care for these needs.

A check list of reading skills to be taught simplifies the job. Such a check list should be kept in a convenient place. As observations are made, weaknesses are checked; and at the earliest possible time, reinforced teaching takes place.

An example of such a check list is available. Due to our limited space, suggestions will be made for the corrections of only a few of the items listed.

First let us consider the area of readiness for reading in the primary grades.

The lack of social and emotional readiness may be indicated by a lack of interest in learning to read. To overcome this aspect we read stories and poems to children. They are introduced to the library and encouraged to browse. Simple messages are written in manuscript on the chalk board, and the bulletin board is used to arouse the child's curiosity and to help him feel a need for reading. An interest is shown in the child; and when curiosity is shown by the child, favorable comments are made. A smile and a kind word encourage initiative and resourcefulness. Simple procedures, such as following directions to a surprise, puppets of various kinds, dramatizations of stories, or use of flannel board, encourage those who otherwise would hesitate to take part in activities.

Children need time to enjoy pictures found in attractive books, time to listen to things around us and to records, and time to see and observe.

Many supplementary readers are needed to provide for the varied interests of children. These supplementary readers should range from the easy to the relatively difficult ones.

Parents should be helped to take an interest in and show enthusiasm for their children's work at school. Teachers should give praise in detail when the child has done a job well. We should give children our full attention and be specific with criticisms. Too many criticisms given at a time tend to discourage, as do difficulties discussed with others, either at home or at school.

Patience does much to give a child a feeling of security. Finding small jobs within the child's ability is good. Be sure that the materials used are not too difficult for the child to use and that he understands how to use them.

Teachers can help a child to have something interesting to share with others and thus promote better social adjustment.

Choral reading which begins with a short part of a story repeated in unison, as well as more advanced choral reading, does much to give a child a feeling that he belongs.

If children are involved in activities such as using puppets and the flannel board, they feel more secure and more a part of the group.

Physical readiness is important in reading at all levels, but it is particularly so in the primary grades. Many children hear or see poorly because of physical defects that require medical attention. These should be detected by screening tests, reported to parents, and referred to medical authorities. Some primary children have not developed near-point vision to the extent that they are ready to deal with printed material at ordinary reading distance. For these children large manuscript experience charts and books with large print can be used to advantage.

Until recently it was assumed that a mental age of 6.5 years was considered essential for success in beginning reading. Now, many authorities believe that it is neither possible nor desirable to establish an arbitrary mental age that will apply equally in all cases.

While some children come to school ready to learn how to read, others need help in developing readiness. The level of readiness can be determined by such means as teacher observation and readiness tests. For those children who lack readiness some or all of the six instructional jobs suggested by McKee (*1*) might be carried out: (1) providing training in visual discrimination, (2) providing training in auditory discrimination, (3) developing the understanding that reading matter is to be observed from left to right, (4) providing training in listening, (5) creating a desire to learn to read, and (6) if necessary, constructing concepts and developing vocabulary needed for beginning reading.

Initial sight vocabulary makes use of the listening vocabulary of children. Writers of basal readers for primary grades strive to limit the words used in their selections to words in children's listening vocabularies. This practise removes some meaning difficulties. The child is taught to observe the form of the word and to think the pronunciation. Thus he is taught to look at the form of the word and is stimulated to associate the pronunciation of the word with its meaning and form.

To build the initial sight vocabulary experience booklets, charts, and preprimers may be used to advantage. Pupils' names, directions, charts or cards of action words, news items, additional preprimers, signs, and labels may be used. Words are used over and over in many new sentences and new settings. These words they associate with action, with pictures, and with objects. The development of sight vocabulary should be continued beyond the primary level.

Word recognition may be done through activities such as matching and finding the correct word to fill in a blank. Sentences containing words desired as sight words may be used under pictures.

Authorities do not agree on the number of words the initial sight vocabulary should include; and they should not, for it would probably vary from child to child. As the reader feels a need to identify unfamiliar words, the word-attack skills are presented.

As these skills are taught, the teacher should be constantly alert for weaknesses and strengths of individuals and of the group. The teacher should take the appropriate steps building on strengths to correct the specific weaknesses as soon as they are detected. For at least some of the children, these word-attack skills will need to be taught and retaught for adequate mastery.

The word-attack skills introduced in the primary grades (and continued in higher grades for those children who need them) include word-form clues, context and picture clues, structural and phonetic analysis, and use of the dictionary.

Children should understand that it is desirable to use two or more word-attack skills in combination rather than to depend on any one skill in isolation. Constant use of these skills in meaningful situations reinforces the initial teaching. Many and varied activities in line with the interest and achievement level of the children make for effective learning. Ruth Strang (*2*) says: "There are few, if any, children who cannot learn to read better if they are given time to grow and if they are provided with favorable learning conditions." Surely teachers are not aware of the many thousand who are, at least partially, reading cripples.

Boys and girls probably read better today than ever before, but we are still falling short of our responsibilities as teachers. Failing to read adequately produces a variety of forms of educational and personality maladjustment.

If we can detect deficiencies and correct these deficiencies day-by-day in the primary grades, children need not be reading cripples. Severe problems usually start out as simple ones and frequently occur in the primary grades.

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B. INTERMEDIATE LEVEL

1. Diagnostic Teaching in Upper Elementary Grades

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HOW WILL TEACHING reading in the upper elementary grades be affected by the overwhelming attention currently being paid to beginning reading instruction? How will it be affected by changes in curriculum and organization such as the middle school, non-graded programs and varying degrees of departmentalization?

There is the possibility that upper elementary teachers will once again listen to the siren song of "learning to read in primary grades and reading to learn thereafter." The grain of truth in this cliché seems to be supported by claims of newer basal programs and linguistic-phonics approaches that all the word-analysis skills, from letter-sound relationships through use of the dictionary, can be learned by the end of third grade. Suppose that excellent teaching in the primary grades did indeed insure mastery of this stepped-up program, so that by fourth grade most children could decode any printed word and use context and other comprehension skills to discover meanings. Would teachers in grade four and beyond then be justified in adopting "reading to learn" as their watchword? No, not if that slogan is interpreted as assigning students to read without teaching them how. But if "reading to learn" is interpreted as teaching youngsters *how* to learn through reading, there is reason to believe that reading programs in upper elementary grades may be greatly strengthened. Real improvements in materials and methods of teaching beginning reading have appeared in this decade. Teachers in grades four to six now have the chance to build stronger programs on the improved foundations of primary reading instruction if they refuse to believe that a good start means that "reading to learn" just happens.

Upper elementary teachers who have learned to analyze the reading process and to observe its development in individual children are prepared to teach reading-to-learn skills or to re-teach learning-to-read skills. They know that some children who have "been through" the 3-2 reader have not necessarily mastered skills of beginning reading. On the other hand, they know that some children at the beginning of fourth grade have not only mastered beginning skills but are able to apply these skills in increasingly complex materials. Diagnostic teaching is as vital a service to advanced students as it is to the retarded.

A second influence on teaching reading in upper elementary grades—the burgeoning curriculum and new organizational patterns—may be positive or negative. Teachers' skills in diagnosis can determine which. Surely the reading program stands to suffer from increasing specialization in the upper elementary grades if the experience of the junior high school is duplicated. Here we have seen departmentalization make every teacher a subject specialist (in intent, if not in fact) and none a teacher of reading. We have tried to patch up the situation by creating "extra" reading classes that isolate skills instruction from the learning of subject matter, or we have tried without notable success to train subject specialists in methods of teaching reading.

The way to avoid similar problems in the elementary school is to keep the self-contained classroom, bringing subject-matter specialists to the children instead of dispersing them on a fixed schedule to teachers who lose track of individuals when they have pupil loads of one hundred or more. In a design that allows for specialization without departmentalizing, language learning (including reading) is central to the whole curriculum and the core of the classroom teacher's education. The help he needs in teaching math and science, social studies, art, and music comes into the classroom in the person of the teacher-consultant who adds depth, richness, and accuracy to the curriculum. But the children continue to be observed and guided by the one who knows most about their learning processes. I am suggesting that reading specialists in the intermediate grades should be the classroom teachers. The subject specialists should be the "floaters," working with teachers and pupils but without permanent relationships with or responsibilities for grading any groups.

What turns a classroom teacher into a reading specialist? More than anything else, it is the ability to diagnose and to develop strengths and correct weaknesses. Any teacher can distinguish good readers from poor and fair-to-middlin' ones. During the first week of school, without consulting the cumulative folders or the standardized reading-test scores, Miss Jones can tell which of her students can read the fourth grade texts with ease and which cannot. But so could any layman. What makes Miss Jones a professional is her skill in analyzing *why* pupils can read some books fluently and with understanding and other haltingly and without comprehension. We mean "why" in the sense of what specific reading skills are present or lacking. The deeper "why" of causation is one that Miss Jones should also explore, with help from the school psychologist, physician, the child's family, and others; but when she finds pupils who are severely and inexplicably retarded, she will have to refer them for clinical diagnosis and treatment.

Determining the readability level at which a child can learn through reading is a necessary first step. It is accomplished through the informal inventory based on graded selections from basal readers, which serve also as a limited vehicle for analyzing the reading performance. This crude instrument allows a sensitive teacher to guess at how a child normally attacks silent reading by sampling how he reads at sight and by comparing comprehension after silent and oral reading. Analysis of oral-reading errors can reveal specific weaknesses in word attack—errors on medial sounds are most common among poor readers in intermediate grades—and in use of context. But the significance of specific errors varies widely. A meaningful substitution is a far different order of error from a mispronunciation or wild guess. Refusal to try a word indicates the most serious weakness. Similarly, comprehension errors vary in significance. Accurate comprehension after silent reading alters our evaluation of the oral-reading performance.

So, merely quantifying errors on an informal inventory is no more revealing than on a standardized-test score. Each error must be weighed sensitively if appraisal is to be accurate. Even so, an informal inventory, like any other test, only starts a series of hypotheses. Diagnostic teaching is the process of continuously checking hunches.

The classroom teacher uses the informal inventory only on those pupils he suspects of reading below grade level. He identifies these through testing oral reading in small groups and notes on index cards the nature of each child's performance. Children who read a sample passage from a grade-level reader with at least 70 per cent comprehension and few gross oral-reading errors may be grouped for instruction at this level. Excellent readers form another group, perhaps to be instructed from a higher-level basal. After individually testing the poorest readers, the teacher knows the level where developmental-reading instruction can safely begin for them, and he knows the types of weaknesses that require supplemental skills instruction. Moreover, through individual and group testing of this kind he acquires a first rough estimate of the independent-reading levels of average and poor readers.

Since the basal program is but one phase of teaching reading, diagnosis extends to the subject texts and to analysis of study skills. (Children reading on primary levels are excused from this phase of the diagnosis. They are not yet ready to learn very much through reading; their study of math, science, social studies, and literature must be largely accomplished through listening and oral participation, with tape recordings and visuals supplementing class discussions.) We cannot assume that children capable of reading grade-level basal readers will learn through reading subject texts at corresponding levels.

Diagnosis should begin with the teacher's careful analysis of these textbooks, which will reveal the need for types of reading not ordinarily encountered in basal readers, workbooks, or skills exercises. For example, successful reading of science texts requires initial understanding of the organizational pattern of the whole book and of individual chapters, the ability to integrate the reading of experiments (following directions, using diagrams and pictures) with the basic text, skill in noting details, ability to construct concepts and to hypothesize, ability to evaluate and revise generalizations, and habits of flexible reading. Skill in identifying major and minor ideas, which is developed on well-structured expository prose in reading workbooks, must often be abandoned or greatly modified for reading science, math, and even social studies books, which employ single-sentence paragraphs, omnibus paragraphs containing more than one main idea, and transitional paragraphs that express no main idea. Outlining based on following the author's organization does not work in many textbooks which instead require the student to reorganize the author's ideas into a logical, easily retained structure.

Analysis of subject texts will convince the teacher that the spectrum of reading skills to be developed in upper elementary grades extends far beyond the basal. Thoroughly acquainted with the styles of textbook writing and publishing, the teacher will observe carefully how students respond to problems such as those noted above, will estimate how much assistance they need, and will decide when and how to offer it.

The diagnosis which precedes teaching will have to be limited. One clue to the readability of a specific text may be obtained by duplicating a passage omitting every fifth or seventh word. Children who can restore about 70 per cent of the deleted words (or their equivalents) can probably learn from this text.

Teaching the over-all structure of the whole book should be a first step, followed by frequent checks of ability to use the table of contents, index, glossary, and special features. Diagnosis continues as the teacher evaluates children's readiness for each assignment in a subject textbook, observes their attack, and listens to their discussions of what they have read.

Since there will be differences in the abilities of a group of children for whom a single textbook is a reasonably good choice, differentiated study guides will provide more direction for some, less for others. A study guide for one group may re-word complex passages or supply help with concept formation or call attention to context clues. For another group using the same text, the study guide may call for more subtle inferences or may challenge pupils to question facts and generalizations.

In the upper elementary grades, children of comparable abilities in word skills and basic comprehension develop divergent rates of reading. Diagnostic teaching uncovers such differences and makes provisions for them.

Diagnosis of reading and study skills means probing children's responses to reading and their uses of ideas obtained from reading. Comparisons must be made between the ability to recognize ideas on objective-type tests and to reproduce them in free responses and the ability to interpret and extend ideas. Since facility in expression is crucial in measuring comprehension, written and oral responses should be compared.

Yet diagnostic teaching is not simply a matter of varied testing procedures. It is more a matter of observing how children respond to various approaches, how they answer questions phrased in different ways, and how they react to different degrees of teacher direction. Diagnostic teaching means observing how a child attacks an assignment in a textbook, how he uses references, how he chooses books, how he behaves while reading, and what his attitudes are.

The object is to find out what lies behind a test score and how a pupil learns best in order to facilitate learning to read and to make learning through reading not merely possible but desirable in his eyes.

2. Meeting Barriers to Comprehension

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ALL OF US ARE aware that children encounter difficulties in understanding what they read. The general public makes such worried comments as, "Children in school today can't read as well as they should." Although these persons may also be saying, "Children could pronounce words better if they were taught by a different 'method,'" they do also often mean "understanding of what is read is incomplete." Teachers say, "He misses most of the questions"; and a child himself is the most direct and vigorous in his pronouncement: "I don't get it!"

What is needed, most especially by teachers and learners, is an understanding of why comprehension is often incomplete and inaccurate. What are the barriers that prevent a fuller understanding of what is read? This one is a persistent and troubling question; and while no easy answers are available, we need to look as sharply as possible at the nature of the troubles children encounter.

If "barrier" is an unusual term, it may be a useful one because whatever comes between pupils and their understanding of what they read does offer a pretty solid and formidable obstacle. It is more than a light hurdle, something which may be easily leaped over or lightly pushed aside. There is a demanding struggle to be engaged in if a reader is to surmount the high wall that keeps him from the pleasant reading vistas, the delightful reading pathways, and the joys of fulfillment in reading which lie on the other side of barriers to his understanding of what the printed page has to offer him. As teachers, we must know what barriers exist between the reader and his clear understanding if we are to discover more effective ways of helping pupils to get a good running start and scramble over the difficulties.

Effective Assistance to the Learner is Essential

Although we are eager to help the young reader, it is sometimes possible that our out-stretched helping hands never really touch him. For example, we conscientiously discover weaknesses in specific reading skills; and then we give to pupils, as directed in books and manuals, the practice exercises designed to meet the precise needs of individuals or groups of pupils having the same reading difficulties. In so doing, we anticipate that these specific skills necessary to the understanding of what is read will be so greatly strengthened that improved comprehension will result—an effective procedure, surely. Furthermore, we observe that practice exercises of this sort have been carefully planned and constructed, and more often than not they are pretty glamorously packaged. Newly prepared, keyed to today's interests in space exploration and the like, they appear glossily efficient. Or perhaps we prepare such practice exercises ourselves, thoughtfully adapting them to use words and concepts familiar to our pupils. But in either case one question is quite important: Have we made as certain as we possibly can that the reader himself sees the connection between the practice exercise and the reading tasks he encounters elsewhere? One may be quite competent in answering the questions posed in a given exercise but at the same time unaware that this particular approach to comprehension is related to one's reading problems as far as understanding other printed materials is concerned.

Perhaps to be more certain that our proffered help turns out to be the kind that the pupil can feel is actually boosting him up over his particular barrier we will need to do two things. First, we may help the pupil analyze the nature of his own difficulties; and second, we may make certain that the activities he engages in are clearly related to his own significant reading experiences. Good teachers often, for example, say such things as: "What help do you think you need now? What were you thinking about when you said . . . ? What made you think this one was the best answer? or Before you look for this information, what will you need to do first?"

While there is seldom time to allow a description of every boulder in a pupil's barrier to understanding or to analyze every concretion of accumulated failure, we can profit by being sure the learner himself knows as clearly as possible the size and nature of the stumbling blocks in his own path. We can attempt to enlist his judgment about the quickest and most satisfying means of demolition. Actually, it is he who must set off the charge of dynamite!

It is also possible that in our eagerness to boost the learner along to greener fields in reading comprehension, we have lost sight of the helpful effects of present reading pleasure. We may have incorrectly assumed that all contacts with books and reading are fruitful ones, leading to the enjoyment of reading in the widest sense. In fact, in fostering vigorously the development of the skills related to understanding and enjoyment, the pleasure to be found in reading may have been lost. Freedom to explore interesting books with a chance to read for one's own pleasure is a powerful incentive to continued practice. My informants are telling me that even extremely reluctant readers are eager to read about Batman. So long as some interest is present, the reader can gain enough momentum to reach wider and more rewarding interests as more assurance and satisfaction are gained. Freedom to explore may also include freedom from formal questioning or checking up on reading skills. Checking and questioning, essential as they are, need not extend to all reading situations.

It is quite likely, as middle-grade children encounter many kinds of materials new to them, that the road to comprehension is so steep and forbidding that these children will need extra doses of encouragement or what is often called a "supportive educational climate." Particularly is this supposition true if we ask children—as we often should—to make inferences about what is not directly stated in the selection. In responding to any question about his reading, a child must risk the possibility of error. Many good teachers wisely minimize this risk by commending the pupil upon the process in arriving at a conclusion, rather than universally offering approval for correctness of an answer. A pupil who hears frequent judgments as to "this is right" and "that is wrong" may become timorous in venturing any response at all. A more fruitful kind of guidance may well be in such comments as, "Was there something in the story that made you think the man was very old?" or "What was told in the story that made you feel Jim would become Bill's good friend?"

It is apparent that the questions asked, and the context in which children must answer them, can be a fairly serious threat to their self-esteem, thus offering something of a barrier to understanding. A visitor to an elementary classroom, demonstrating to a group of teachers the need to establish rapport and to relate the content to the selection to be read to the pupil's own experience, asked a fourth-grade girl, "Do you have a pet cat or a little kitten at home?"

The little girl answered with devastating directness: "No, I never had a cat. The housing where I live they won't let you have any pets, not a cat or a dog. So I don't never have one."

A visitor, unaware of the community, may perhaps be excused for betraying a child into a public admission of what she must indeed have felt a deprivation, but it is an experience one wishes not to repeat too often. Perhaps if we listened more, and extracted less by way of questioning, our guidance could be more sensitive and more effective.

Teaching Procedures Require Thoughtful Organization

Another way in which we may unwittingly enlarge the dimensions of barriers to comprehension may be through unwise organization of our teaching procedures. It is possible, for example, to plunge into the details of a learning situation before learners are aware of the nature and shape of the task before them. As one observes teachers at work, it becomes increasingly apparent that preparation for a reading experience may be either perfunctory and disconnected or vital, clear, and functionally related to the objectives sought and the procedures followed. For example, a given selection may be enjoyable to a group of readers only if some Spanish words in the story are understood. Knowing in advance what these words mean in this context, how they are like familiar English words, and the special significance these words will have in getting the sequence of the action—all this knowledge helped a small group of rather inept fifth-grade readers to achieve understanding and enjoyment. Other aids included a clear over-view of the likely problems arising for the personages in the story as well as a specific understanding of other useful features of the structure and design of the narrative.

In another group in a fourth-grade classroom, a realization that their oral reading was ineffective stimulated these pupils to plan with their teacher for some specific practice sessions. These children set up objectives for clear, interesting reading in audience situations and practiced until they themselves were satisfied that they had made real progress. In these examples the skill and practice segments of the situation are clearly seen by the learners as related to more remote goals and to a larger pattern of needed skills. Generalizations about locating main ideas, or about the surveying or reviewing of material, or using locational aids are thought of not as ends in themselves but rather as means to reading for understanding. If there is some temptation to say of a pupil "He does very well in dividing words into syllables" rather than thinking of him as a user of these generalizations as a means to more rapid, accurate grasp of meaning, a shift in our organization and emphasis may be indicated.

The Relationship of Reading to Experience Requires Consistent Attention

For many years concern has been expressed for frustrated pupils who attempt to read selections unrelated to their experience and beyond their present level of skill. Yet we are confronted constantly with newly disturbing aspects of this old problem. A few illustrations will make this point clear. A fourth-grade pupil, using oral speech sounds familiar to her, confused the word "left" with "let's" and hence missed completely the meaning of a passage. Confusion is also caused when word endings such as "ed" and "ing" are dropped. One wonders, also, if there is not some confusion as a child translates as he reads, possibly transforming the "he went" that appears in print to a more familiar form "he done gone." Even the delightfully archaic "hit" for "it" may trouble some children, in whose speech it is still a reminder of Elizabethan English. Our thoughtful listening to what pupils say, plus many opportunities to hear and to speak in less familiar patterns, seems essential. Understanding grows through a guided use of language in all areas.

Indeed another persistent problem is that of providing experience in all areas of language—speaking, listening, writing, reading—so that pupils may become increasingly familiar with a wider number of concepts and with the relationships among ideas. Since it is easy to spot details of information in any discussion, pupils are often expected to respond to details. Unfortunately, pupils are less often expected to react to more complex ideas and situations in which inferences and conclusions are to be drawn from clues found in the selection discussed. A sixth-grade class once tried to discover which of three boys described in a story was the oldest. Diligent search of their text and accompanying pictures produced no reliable hint whatever. After the class session was over, a student teacher felt uneasy because "a right answer" could not be found. The pupils, however, were quite rightly satisfied with the conclusion that they had no way of telling the ages of the personages in the story. It is a significant milestone toward competent reading and a high level of comprehension when the learner realizes that there are occasions when facts are not presently available and that there is no "right answer."

Additional Help Is Needed in Making Application to New Situations

Extending understandings grasped through reading to a new context takes the reader into new, but important, aspects of reading skills. Recently I had an opportunity to ask some seventh-grade pupils who were reading at about a fifth- or sixth-grade level to react to a short poem, written in very simple language, which was in effect an extended metaphor. Their answers to some multiple-choice items showed that they had some grasp of the meanings expressed in the poem. A different kind of question, in which they wrote a brief statement of their own immediately after reading the poem, required extending the meaning obtained and applying ideas in a new context. Many responses to this kind of question were often quite without reference to previously indicated understanding of the passage just read. Perhaps these pupils were responding to the most recent segments of their reading, rather than holding on to a thread of thought which needed to be woven into conclusions drawn a few sentences later. The problem is one which I hope to investigate further. If it is true that difficulties of this kind are common, then some specific guidance in such situations may be called for.

It is true, of course, that ideas received through reading are often put to fairly immediate use. One may follow explicit directions or say to oneself, "Oh, yes, that's the way it is. I never understood this before!" In a more complex situation the reader must move out beyond application in the same situation to something new in some way. He may be asked to think: "If this is true in this situation just described, in situation A and for Mr. B. and Mr. C. in the year 1900 what would happen, I wonder, if the same kind of event happened in 1966? What if it happened to Mr. X. and to Mr. Y.? What would be the same? What would be different?" If such a "moving out" in a pupil's thinking about new relationships is a desirable aspect of reading comprehension—and it appears to be an essential aspect of creative thinking—we need to do more than we now may be doing to help pupils achieve it.

Conclusion

Children may be helped to overcome barriers to their comprehension by wise and helpful guidance. If the reader analyzes his own difficulties and makes useful connections between practice for developing skills and the pleasurable rewards of reading, he is likely to read with greater understanding.' Teaching procedures that provide support for his efforts and that are carefully organized, tend to give him useful assistance. A pupil's ventures into new areas in interpretation and his risk of defeat as he tries new responses require teachers to give needed encouragement as children use their own initiative and courage in overcoming barriers to comprehension.

C. JUNIOR HIGH SCHOOL LEVEL

1. Organizing and Managing Remedial Reading in Classrooms

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WHEN REMEDIAL READING in the classroom is discussed, even the definition of remedial reading must be tailored to fit the situation. The junior high reader to be scheduled for classroom remedial work is the student who is retarded from his potential performing level by two or more years but who does not fall below the beginning third-grade reading level. When remedial reading is conducted in the classroom, it should not include the extremely disabled reader, the mentally-retarded student, the emotionally disturbed child, and those other youngsters whose problems would prevent them from learning in a classroom setting. Efforts to provide remedial reading in the classrooms do not eliminate the need for the highly trained specialist. The classroom approach is, basically, an attack on those reading problems that tend to be neglected by the classroom teacher and which do not receive the attention of the specialist because they are not severe enough.

The type of remedial reader which would find the classroom approach beneficial was described by Gray *(2)* as a "Needlessly Retarded Reader." This student reads much below the level expected in light of his mental ability and seems to be free of any personal handicaps or deficiencies that might contribute to reading disabilities. His reading is characterized as slow and careless. He has limited and inaccurate comprehension and recall, has inadequate word skills, and lacks flexibility in rate and methods of reading different materials. He lacks interest in reading and is generally poorly motivated. His history often reveals a considerable amount of buffeting by his environment, but at this time his adjustment is usually such that learning may be restored by a program of remedial reading in the classroom.

Organizing Remedial Reading in the Classroom

The organization of remedial reading in the classroom should be based on the reading diagnosis of the students. Organizational patterns in a classroom have but one purpose—to make the teaching-learning relationship effective. In remedial reading this teaching learning relationship is effective to the degree that the diagnosis is accurate. This diagnostic phase of remedial reading should be given as much attention by the teacher as the instructional phase is given. In report after report of remedial programs, diagnosis is frequently not considered. When tests are used, they are generally for program evaluation rather than diagnosis.

Keeping in mind that we are discussing classroom remedial reading rather than clinically oriented work, the diagnosis usually will be of the status type. The emphasis should be on determining the present condition of the reader and his reading skill and not on discovering the causal factors. It should be noted, however, that if the teaching-learning relationship does not become effective with a status diagnosis, then the classroom teacher has a responsibility to refer the student for a more detailed and, perhaps, a causal diagnosis.

The essential factors in a status diagnosis for the classroom-remedial situation include both the reader and his skill in reading. Information concerning the reader's status for learning should include the extent that his mental ability will contribute or limit his growth in reading; the degree that his current physical condition influences learning; the depth of his motivation for learning to read, including the social-cultural factors; and the extent that his personal adjustment interferes with or contributes to his classroom learning.

A status study should be in considerable depth in regard to the reading condition of the student. Information concerning the reading development of the student should include the results of standardized reading-achievement tests; his independent and instructional reading levels; the degree of his mastery of a variety of word-recognition techniques; the extent of his development of various comprehension abilities; and the nature of his reading habits and preferences. Some of these factors require the use of standard-testing instruments, while many of these factors are best studied informally within the dynamics of the classroom. Further information will be found in the health, testing, and scholastic records of the student.

The various diagnostic measures used in a status study of a student's reading condition would include an intelligence test, silent reading with vocabulary and comprehension subtests, individual and group informal reading inventories, checklist tests of word-recognition skills, and interest inventories. The diagnostic procedures would include total group, small group, and individual contacts. A status diagnosis will make possible the organization of the classroom into teaching-learning patterns which will involve large and small groups as well as individual students.

Managing Remedial Reading in the Classroom

If organizing a remedial-reading classroom implies diagnosis, then the managing of the classroom must be related to the treatment of the reading problem or the instructional tasks in remedial reading. The problems in this diversified organizational pattern are far more complex than is called for in mass single-purpose instruction. The requirements of the teaching-learning situation in the remedial-reading classroom demand a highly differentiated program. The organization must give the teacher the opportunity to do response teaching. As diagnosis is continuous, the teacher's insight into the needs of the students is constantly being modified. This function requires different responses on the teacher's part to meet changing needs. Flexibility is a major requirement in management of remedial reading in the classroom.

We have never been better equipped to handle diversified classroom instruction in reading than we are today. The rapid development of materials that are new in format and design, if not in content, now make it possible to provide instruction in a classroom setting that earlier was achieved only in tutoring or small-group instruction. Materials that have special merit in classroom remedial situations are multilevel, self-administrating, and auto-instructional. The use of materials of this nature gives the teacher the freedom and flexibility necessary to provide directed experience to specific groups and individuals. However, all materials and methods must be selected to assist in a specific teaching-learning situation as time is too important a commodity to the student to waste in randomly selected practice.

This diversified attack on the problem must make it possible for each student to develop according to his needs. Motivation should be given first importance, for without it the other aspects are purposeless. Basically, reading is valuable for what it will do for the reader, and this concept must underlie our efforts in motivation. Interests are important; and if the reader can discover that reading makes a contribution to him personally, then much of his reading could be self-directed. In addition, motivation may result from the student's awareness that growth is taking place. The practice of having students maintain records of daily progress has merit.

Closely allied with motivation is success. Well-meaning programs that cause continued failure are failures. Success in reading improvement for these students has its origin in specific adjustments in reading instruction. This program should include the selection of materials for teaching reading skills at the instructional reading level and the selection of materials for home assignments and personal reading at the reader's independent level. It should include skill-development instruction that is specific in terms of needs and systematic in its development. The search for success will cause the instructional program to be flexible and to be characterized by innovation. Stereotyped repetitive approaches should be discarded and alternatives sought.

Organizing and Managing the Total Curriculum

There is one aspect of managing the remedial reading program in the classroom which must be considered although it falls outside of the reading class. The careful diagnosis and the specific adjusted instruction described has been limited to reading. However it must be recognized that this diagnosis has implications for adjustment in all curriculum fields.

Ideally, those staff members in the junior high school who have responsibility for these remedial students should operate as a team to make all of the teaching-learning situations effective. The diagnostic data collected by the reading teacher should be available to the entire team who would supplement it with information from the other subject areas. Armed with these data the staff can then make the necessary decisions about the type of instruction and instructional aids to use. The need for diversification that is evident in reading instruction is relevant for all areas of learning. Isolated efforts in the reading classroom to achieve improvement for these students is doomed to limited success unless efforts go beyond reading instruction. Only by a cooperative effort on the part of the total staff can significant improvement be secured.

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2. Individualizing Instruction in Classroom Corrective Situations

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How Significant Adults Feel Makes a Difference

IN ORDER FOR us to talk about individualizing instruction we need to examine our feelings about individual differences. Researchers tell us that educators do not yet adequately *understand*, *value*, or *use* the uniqueness of individuals. We *talk* about individual differences as though we accept them; then we act as though they were unfortunate. We aren't going to make many adjustments to take care of individual differences until we change how we feel about differences.

It is time that we acted upon our knowledge that how a person feels about himself is more important than what he knows. What a child thinks of himself, his openness to experiences, his store of concepts, his way of organizing his understandings, his habit of testing reality, and his acceptance of his own feelings are all an outgrowth of his interactions with people and things. We know with surety that a poor self-concept inhibits the basic process of learning.

Empirical evidence is mounting that when the significant adults in a child's life think he *can do* . . . can achieve . . . he is better able to perform. An accumulation of evidence from last summer's Headstart Program supports the belief that when the teacher thought the children could perform a multitude of tasks, the children did. When the teacher thought the children could not, they did not. The ability of the children was not correlated with their performances but with the opinion and attitudes of their teachers. Students sense easily how adults feel about them and their capabilities, and it makes a difference. Marie Hughes *(1)* tells us that even laboratory animals perform mazes better when their researchers think their animals are bright; that is, the rats of researchers who had been told their rats were "stupid" made significantly inferior test runs on the mazes.

Individual differences make work for us and we show it. We don't make adjustments in the curriculum for differences in cognitive styles. For instance, the child whose cognitive style is not compatible with the basal-reader approach in most situations must be taught to read outside of the classroom, often in a corrective situation years later.

Acceptance

If prevention rather than correction or remediation is ever to become a reality, children must be accepted as they are. Acceptance is not easy to give if one has not had much acceptance oneself. However, adults can change and become more tolerant and accepting.

The more accepting one is of oneself, the more freely aware one is of the behavior of others. All classroom teachers need to be aware of the symptoms that children constantly exhibit which signal a need for help. Only as a teacher understands the signals does she become more diagnostic. Both verbal and non-verbal behavior communicate much valuable information to the teacher who can interpret it.

Stress

A checklist of potentially troublesome symptoms to aid an observant classroom teacher can easily be compiled. Many of these symptoms are signs of stress. People (of all ages) under stress see less; they hear less; they observe less; they think less; and they are generally less effective than their counterparts who feel comfortable about themselves.

As teachers become more diagnostic in their work with all children, they become aware that all mistakes have meaning. There is no such thing as a meaningless mistake. The classroom should be the safest place in the world to make a mistake. Observant teachers value every mistake because mistakes assist in pinpointing corrective assistance. Fortunately, when help is given to improve learning, it also acts to relieve tension. Conversely, when tension is relieved, the learning possibilities improve.

Correction in the Classroom

The difficulty of attempting correction in a classroom situation is most often found in the range of difficulties of the students. The smaller the class the greater is the possibility of individual attention. Some of the successful ground-rules which have enabled teachers to handle classroom corrective situations are as follows:

1. Grouping
   Grouping according to instructional needs is essential and implies constant evaluation.
2. Student aids
   The use of student aids will multiply the one-to-one contacts that are possible in a single class period. Learning teams of two and three are often profitably set up for a definite assignment or period of time.
3. Materials
   A wide variety of materials on different levels should be available both for formal presentation and independent browsing. Effort should be made to concentrate on easy books which appeal to boys.
4. Begin instruction low enough
   Teachers often find it necessary to go back to first-grade work in order to fill in gaps which are causing difficulties at the tenth-grade level. If the tenth grader cannot remember how to make a "j" or a "g," this lack is an obvious gap. It is wise to watch the way children make their letters in a writing situation so that the method can be appraised as well as the end result.
5. Use language-arts approach
   Listening, speaking, reading, and writing all reenforce one another;

and as one area improves, carry-over to the other areas should be stressed.

6. Use Self-Checking Devices
   The use of self-checking devices which enable the student to know immediately whether he is right have immense value in corrective-reading situations.
7. Test-Teach-Retest
   Time is precious in a corrective situation and we cannot afford to waste time teaching what is already known. Testing first facilitates instructional planning and avoids boredom. Many informal tests given before planning the next day's lesson will pay big dividends.
8. Allow crutches
   If the students are still relying on immature habits such as vocalizing or pointing, it is best to refer the students for special evaluations. Ordinarily children do not use crutches longer than they need them. Depriving children of the crutches while they still need them is harsh. When the rights of others are considered, it is best to allow the use of crutches until a thorough diagnosis is made.
9. Pose good questions
   The quality of the questions the teachers ask often has a distinct effect upon the quality of the reading done by the students. Too many factual and detail questions lead students to read for facts and details. Teachers need to pose more "why?" and "how?" questions which cause a different level of thinking. The questions the teacher asks *after* the reading test comprehension, but the questions the teacher poses *before* the reading teach comprehension.
10. Follow interests of Students
    Children are naturally interested in what affects them today. This interest should be capitalized on if the student is to become personally involved in learning.
11. Note successes
    Nothing succeeds like success! Some method of appraising small successes frequently should be established. Recordings of oral reading, more word cards in the shoe box, more vocabulary cards, fewer errors noted in oral reading, or comprehension checks can all serve to point up successes.
12. Vary the activities in a period
    In a fifty-minute period as many as four activities can be planned and executed. Structuring the hour so that students know exactly what to expect and what to do as soon as one activity is completed will give the students a measure of independence which they value.
13. Protect the ego of students
    How he feels is more important than what he knows. As he learns that someone cares, he will become freer to learn. Every human being has value and deserves respect. He will believe you if you feel it.

Summary

Secondary teachers are often leary of trying to individualize instruction because students often take advantage of freedom. If the teacher starts slowly, sets up rules and regulations which are tenable, and involves the students in the planning, individualizing will bring much satisfaction and more learning.

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D. SENIOR HIGH SCHOOL LEVEL

1. Identifying the Reading Difficulties of the College-Bound Student

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IN A SOCIETY in which better than fifty per cent of its high school graduates are entering schools of higher learning, the increase in number of college students who have reading difficulties is understandable but hardly excusable. Recent surveys indicate that by 1969-70 the college-age group (18-21) in the United States will reach fourteen million. Eighty per cent of these report as teenagers that they plan to go to college. Nearly half of them will *(1)*.

It seems imperative that secondary-school personnel and college-admission officers find better ways of both identifying and helping the underachieving reader who is planning for or actively seeking admission to a college or university. This paper is primarily concerned with techniques and procedures which might be used in the senior high school to identify the student who possesses the potential for success in a college curriculum but who lacks the reading efficiency necessary to make him a good risk for college admission. Some of these procedures may also be appropriate in freshman-orientation programs of the type planned on most college campuses.

Screening Techniques

Cumulative Records

Examination of the accumulated record of information about a student provides a sensible beginning step in identification of the underachieving reader. Particularly, the history of his academic progress reflected in the scores obtained on standardized tests of reading achievement will usually provide valuable information. Indicators of the student who may be in difficulty are seen primarily in the record which suggests an erratic performance over the years. The normally progressing learner will usually be consistent in his scores on the various sub-tests which typically are included to measure reading achievement and also relatively consistent in the amount of growth observed in his scores from year to year. By contrast, significant discrepancies between sub-test scores and uneven increments of change in total scores, ranging from no growth or a loss to two or more years of growth in one academic year, are indications of probable errors of measurement and signal the advisability of a closer look at the student.

The comparison of mental-tests results with those on achievement tests has been routinely recommended by reading authorities for a number of years as one means of screening out those students who are in need of more assistance in reading.

Since many group tests of intelligence utilize the reading process in the measurement, poor readers do not always show as great a discrepancy between intellectual ability and reading ability as actually exists. Thus, a great deal of caution must be observed in setting up any arbitrary formula as "one year of difference between mental age and reading age" as a requirement before a student may be considered as a candidate for further study or for corrective-reading programs. The accuracy of the measurement of both intelligence and reading is certainly a crucial question in all instances.

Cumulative school records also often reflect earlier teacher's judgments of the pupil's progress, especially when this progress was at variance with test results and school grades. Occasionally, psychological and other types of special services have been consulted to determine the appropriateness of the child's progress at any given stage in his academic program. The presence of this type of information in the student's record may serve to reinforce the evident need for further study or assistance at the present time.

Standardized Tests

The most common method of identifying underachievement in reading is to administer a group standardized-reading tests at the beginning of the school year.

Those students who place in the lowest-school or national-norm group are scheduled for special help in reading. Such a procedure is of limited value. (1) The pre-college student, usually of better-than-normal intelligence, can often score high enough in such a battery to escape the cut-off point even though he is a better candidate for special help than many of his less gifted peers. (2) There are many factors, other than ability to achieve in reading at a particular level, which may influence an individual's performance on any given group test of reading achievement. (3) Since such measures are *group* tests and were designed primarily for *group* comparisons, the legitimate use of an individual's score *for the purpose of identifying his current level of reading achievement* is questionable.

However, the examination of discrepancies between sub-test scores and comparison of the total performance with previously recorded scores in the cumulative record will provide some indication of the student's need for help. An informal analysis of the pupil's responses to the individual-test items will often reveal the type of error in association, inference, or word perception which led to the marking of an incorrect response. This type of information is more helpful in planning the student's instructional program than total or sub-test scores *per se*. However, conclusions about instructional needs thus gained must be considered "tentative" and should be verified through either individual testing of a diagnostic nature or through initial classroom activities designed to probe these needs in depth.

Recognizing the positive relationship between reading achievement and intelligence, a standardized-group measure of these two areas might be harnessed as a screening device to aid in spotting the underachieving reader. A scattergram for the group can be plotted with the intelligence score recorded on the ordinate axis and the reading score on the abscissa. Developmental readers will cluster about a straight line of regression from the lower left quadrant to the upper right. Any student who placed significantly to the left of the regression line might be considered as a likely candidate for the corrective reading program. This technique also assumes both accuracy of measurement of each of these two variables and a direct, positive relationship between intelligence and reading achievement which is not consistent with our experience. None-the-less, the technique is helpful for screening purposes and of much greater validity if individual measures of the variables are used in place of group instruments.

The Cooperative-Reading Comprehension Tests

College edition tests *(2)* are routinely being administered to all entering freshmen at Temple University to aid in identifying those students most in need of scheduling in courses in reading improvement. Also, all high school and college-age students who are evaluated by the diagnostic staff of the reading clinic and who have seventh-level or better reading abilities are given an appropriate form of this test and the *Gates Reading Survey (3)*. These tests, used in combination, form a more comprehensive measure of the pupil's performance on such group instruments and afford the diagnostician a more versatile appraisal of vocabulary, speed, and depth of comprehension in reading. A further advantage in using these particular tests is their availability in several forms which facilitate their use as post-instructional measures of any change in performance following a period of instruction.

Teacher Observation

Opportunities to observe a student's actual performance in reading situations are present almost continually in every classroom. Teachers who are alert to the need to approach their teaching responsibilities diagnostically will be able to accumulate much information about their pupils' reading levels and instructional needs within these levels. They will also have formed some opinions about each student's general intellectual level of performance apart from reading situations. Thus, in identifying candidates for special reading programs, the recommendations of the teachers who have worked with these students should be carefully considered. It may well be that the truly observant teacher is in the best position, of all concerned, to screen out those students whose performance in reading is definitely inferior to what they are able to do in other than reading tasks.

Ideally, of course, the better screening procedure would be to use all of the foregoing suggestions in combination—cumulative records, standardized measures of reading and mental ability, and the informal observations of the teaching staff. In combination, these procedures may occasionally result in an over-referral for individual evaluation but will also be more likely to eliminate the overlooking of potential college students who are underachieving readers.

Diagnostic Techniques

Once a tentative identification of a retarded reader has been made, the forces of the classroom teacher and any supplementary testing services should be combined. The goal is the best possible evaluation of the exact nature of the difficulties in reading, the degree of retardation which exists, and the factors which are involved in the disability, either etiologically or in a complementary, contributory relationship to the reading problem. Also, it may be necessary, before adequate information can be accumulated to form the basis for planning corrective measures, to go well beyond the field of the student's handling of language. Physical, social, and psychological factors may be standing in the way of his progress and have to be studied. Here, however, attention will be given specifically to techniques for taking a closer look at his reading performance and that in related language areas. Additional areas of investigation which may be needed in individual cases are more the realm of the clinical sessions at this conference and are omitted here.

Informal Tests (4)

The essence of informal tests of language performance is that they measure the individual's performance with pertinent materials against an absolute standard-A, virtually perfect performance. No attempt is made to compare his performance with that of others. No norms are used. The question to be answered is this: "How well can he do this job?" It is from this approach that the achievement' levels and the particular strengths and weaknesses of the college-bound student must be appraised. The evaluation can be made in a group situation or on an individual basis, depending upon his particular case. In a very real sense, the master teacher gives a group informal test with each lesson that he teaches in the classroom. Diagnosis is an integral part of his teaching because he realizes that without it he cannot know *what* and *how* to teach. Only when he feels that he still lacks necessary information about a student's grasp or application of certain skills and abilities does he feel it necessary to rely on individual testing.

Group informal reading inventories provide the opportunity to appraise each individual readiness for handling the material to be read. In preparatory activities, the teacher can determine the adequacy of the language and conceptual background the student brings to the reading. He can also observe each student's ability to set up suitable purposes for reading to guide his own reading and to respond to suggestions which arise from the thinking of others. During the silent reading, the observant teacher can get many clues to help him judge the efficiency and effectivenes with which each pupil handles the material. What signs are there of trouble in understanding the material? How much rereading does the individual do in his attempts to clear up points which at first escaped him? How many puzzled looks are observed in comparison with the number of appropriate responses indicating appreciation of the humor involved or satisfaction at the resolution of a problem? Does the student plod through the material or move along in a relatively relaxed, smooth fashion? Does he make use of typographical and pictorial aids or supplements to the basic text? When ideas are discussed after the silent reading, there are again many opportunities to appraise each student's perfomance. Did he satisfy the purpose he set up for reading the material? Did he pick up additional ideas to enlarge and deepen the picture with which he went into the reading? In the discussion does he present relevant evidence from the text to support the conclusion he has reached? As ideas are discussed, questions raised by students and teacher and pertinent portions of the material are reread for a variety of purposes. The alert teacher has countless opportunities to obtain direct evidence of the adequacy or inadequacy of each student's word recognition, knowledge of word meaning, and ability to use all the necessary thinking skills.

Individual reading inventories, when it is necessary to use them, provide the same basic opportunities for evaluation. Of course, there is no chance to see the student interact with others, but the tester himself can, through direct questioning and discussion, evolve some of the same responses. One additional opportunity presents itself in the individual-inventory situation. Because others are not involved, it is possible to have the individual do some oral reading at sight, thus pushing him to the point that otherwise-masked difficulties will become obvious. Varied levels of material can also be handled more readily in a single individual inventory than in a single group inventory. One objective of both, however, is to determine ultimately, through the use of reading materials of varying levels, the difficulty level of the material the student can handle independently and of that in which he can most profitably be instructed. The second aim is to get the clearest possible picture of the strong points in his reading performance and the weaknesses he has to overcome.

Group or individual listening inventories provide the opportunity to evaluate the student's performance when he himself does not have to carry the burden of the actual reading. The relationship between his reading and his listening performance is a significant one. If he has no special problems in either reading or listening, he should do equally well in both kinds of situations. If he has a reading problem, the level at which he can function adequately in a listening situation should be considered as an index of his potential reading achievement at that time. If the reading problem is removed, he should be able to handle by himself (read) any materials which he can apprehend through listening.

Effective use of informal tests to identify the reading needs of college-bound students demands a well-qualified and well-prepared examiner. Whether the classroom teacher is evaluating in a group situation or an individual appraisal is being made by the teacher or a diagnostic clinician, the evaluation can be only as good as the evaluator. A poor observer cannot be a good informal diagnostician nor can an individual who does not, himself, do a top-notch job of handling the reading of the testing material. High standards of performance must be used and the evaluator must be sufficiently prepared to spontaneously "push" for whatever information is needed to provide a sound basis for judgment of the student's performance.

Informal tests are not confined in their use to evaluation of reading and listening. Because an individual's reading difficulties cannot be thought of in isolation from his total language and thinking performance, areas such as spelling, written and oral expression of ideas, word usage, enunciation, thinking in concrete or in oral-language situations, etc., must all be considered in the total picture of his reading difficulties. The whole life-functioning of the individual, therefore, becomes the setting for informal evaluation. Each piece of written work, spontaneous or required, has something to say about how its author thinks, organizes, spells, punctuates to clarify his meaning, uses words, etc. Each utterance, in the classroom or on the way home, is a resource for evaluation. For the alert teacher, there is more meaningful information available through these informal inventories of strengths and weaknesses than can usually be gotten through a formal, standardized test of word knowledge, or spelling ability, or critical thinking skills.

Standardized Diagnostic Tests

In contrast to the informal approach to the identification of the reading needs of the college-bound student just described, a more formal, standardized approach may be used. There are both group and individual diagnostic tests of this type available, although the former are subject to the limitations of group instruments discussed earlier. The latter group are of a more clinical nature and may be used in place of or in addition to the individual informal appraisal. Depending upon the instrument selected, they measure singly or in combination word recognition, oral reading, silent reading, listening abilities, spelling, and a variety of the sub-elements of the student's word-perceptual abilities. Those which are most applicable for use in the secondary school program are

Diagnostic Reading Scales. California Test Bureau

Gray Oral Reading Test. Test Division, The Bobbs-Merrill Company

Sec. IV, Word Attack, Part 1, Oral of the *Diagnostic Reading Tests, Upper Level.* The Committee on Diagnostic Reading Tests, Inc.

Gilmore Oral Reading Test. Harcourt, Brace & World, Inc.

Gates-McKillop Reading Diagnostic Tests. Bureau of Publications, Teachers College, Columbia University

Durrell Analysis of Reading Difficulties. Harcourt, Brace & World, Inc.

Standard Reading Inventory. R. A. McCracken, Western Washington State College

Gates-Russell Spelling Diagnostic Tests. Bureau of Publications, Teachers College, Columbia University.

Although these tests are helpful, but not always accurate, in establishing basic instructional levels for students and sometimes add some insight regarding their word perceptual needs, *none* of them provide the depth and breadth of understanding about comprehension and thinking abilities which are necessary for careful instructional planning. Thus, they are valuable only when used as part of the evaluation procedure and not as a substitute for the careful probing in depth described in the informal testing procedure.

Summary

The ability to communicate effectively with one's fellowman appears to be one of the most significant group of skills to be gained through the process of education. From an academic point of view, perhaps the most important of these is the ability to read. Secondary schools must find more effective ways of identifying, evaluating, and helping the college-bound student who may be delayed in his acquisition of this ability.

The problems associated with identification of the underachieving student and evaluation of his more specific reading needs have been discussed. It has been suggested that there are no readily available instruments today which will perform this task for us. Teaching is a process of interaction between teacher and pupil that results in each finding out more precisely about the factors involved in the learning process which confronts the student. Each should find, as a result, greater purpose for the activities in which he must participate in order for the student to embark upon his college career with any likelihood of success.

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2. Strengthening Reading Skills in the Senior High School

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THERE ARE MANY reasons why the teaching of reading should be continued through the senior high school. At present we have a far greater insight into human growth and development than we had in the past. Psychological research has established the concomitancy of physical development and mental growth and educational achievement *(1)*. During adolescence boys and girls experience an acceleration of growth in many phases of development: physical, mental, social, and emotional. We may expect, then, educational achievement, including the mastery of reading, to assume new perspectives and depth during the adolescent spurt of growth *(4)*. The ever-increasing complexity of modern concepts in all fields of learning intrigues the adolescent mind and offers reading teachers a challenge and responsibility for limitless development of the essence of reading—comprehension.

Recent research has resulted in a clearer understanding of the psychological process of reading which defeats the traditional belief that reading skills can be completely mastered in the elementary grades. Many of the higher reading skills take on meaning only after students have reached new vistas of understanding, appreciation, personal insights, and individual attitudes toward life *(5)*.

Because of generally accepted changes in promotion policies during the past decade, many pupils are being advanced to secondary schools on the basis of their social age and physical development. These students have only a meager knowledge of fundamental elementary reading skills. They need continued instruction, practice, and drill in the many facets of reading. Also, the reading skills acquired in the elementary grades by average and better-than-average students are far from being complete. They must be perfected, refined, and expanded.

The studies consulted in the preparation of this paper, emphasize the importance of specific goals for the teaching of reading on the secondary level. It seems that without definite goals for the mastery of specific skills little if anything will be accomplished. If, however, the goals for secondary teaching of reading are conceived too narrowly, if they are isolated from the heart of reading—which is understanding, enjoyment, appreciation, and a constant voluntary expanding involvement in the great world of reading—only meager results can be expected. The joys and satisfactions that come from reading will never be experienced by secondary students if they are subjected to piece-meal reading skills taught in a vacuum by unimaginative drill-master teachers.

Pertinent studies recommended a great number of skills to be taught in secondary reading. Of these only two were selected for treatment in this presentation: vocabulary knowledge and flexibility of reading rate.

Development of Vocabulary

Secondary students cannot reach their reading potential unless they have adequate vocabulary knowledge *(6)*. The achievement of this knowledge and the continued growth of this knowledge is insured by the students' love for words. It is facilitated by teachers who possess and radiate a similar spark of enthusiasm for the study of words. Here we present three principal methods for the study of vocabulary.

The first method is the mechanical memorization of long lists of unusual words. This method is based upon the erroneous assumption that single words are repositories of meaning. Memorized lists of words make little permanent change in the students' vocabulary. They offend against long-accepted principles of learning: interest, motivation, and association. Because students memorize these words isolated from content, they forget them very soon. The most serious harm derived from the rote memorization of words is the fact that students attach only one meaning to each term. Thus, they establish a vicious mental block against the effective use of context clues when confronted with new and strange words in a variety of reading situations. They are handicapped in rapid critical thinking because they lack the speedy flux of ideas for want of practice in thinking of multiple meanings of words in context.

An alternative to memorizing long lists of unusual words would be the study in depth of narrow ranges of words taken from various secondary curricular disciplines. Each subject area in the high-school curriculum imposes a specific vocabulary of new terms which must be taught, illustrated, and exemplified from the students' experiential backgrounds. The meaning of many of these words in their particular settings cannot be derived from synonyms, antonyms, and structural analysis, not even from the dictionary. Unfamiliar, specialized printed terms remain a jumble of meaningless symbols, unless they are made vital ingredients of the students' meaningful vocabularies which are based upon direct and vicarious experiences.

Such words as "filibuster," "protective tariff," "sets," "atomic fissure," "plateau," "culture," "oxidation," etc., if well taught in ideational context, with material aids, and by enthusiastic teachers, will become strong bearers of meaning: catalytic agents as it were, fermenting and synthesizing concepts into large areas of knowledge. Here is a tremendous challenge for secondary teachers of all subject areas to open to their students the wealth of concepts of the greatest living language — English. "Its words are pushed, hammered, stretched, and extended to answer the needs of new experiences" *(7)*. Secondary teachers have reported to the writer that their teaching of specialized vocabulary increases considerably the academic achievement in content fields.

Using the Context Clue for Vocabulary Development

There are still many high schools where not every student has his own dictionary. While the lack of this very important aid to reading is regrettable, teachers should know the limitations of the dictionary. The constant, restless referral to the dictionary stifles the ingenuity of students in intelligent guessing of the meaning of new and difficult words or phrases. Many times, too, high-school students experience severe difficulties in selecting the correct statement from a number of dictionary definitions. Frequently, no single entry expresses the meaning the author wishes to convey. The dictionary defines the words and ideas of "yesterday"; it does not present the connotations of the words of today and "tomorrow."

It is the context of a reading selection which determines the word fitting into a particular passage. "Context" is more than the words surrounding an unknown term; it is the total situation in which a word is used. Context clues are hints hidden or expressed in a sentence, a paragraph, or an entire reading selection from which the appropriate meaning of a word can be inferred. Some types of context clues are

the expectancy clue,
the previous-experience clue,
the synonym clue,
the antonym clue,
the association clue,
the figure-of-speech clue,
the summary clue, and
the mood and time of the writer's clue.

Context clues are generally used with other word-recognition techniques, such as structural and phonetic analysis. Indeed, context clues increase the accuracy of word recognition because they make possible the immediate detection of errors by the reader. For the further study of context clues, for practical examples and methods of teaching this important aid to vocabulary development, our readers are referred to the excellent study on contextual definitions by W. B. Mullen *(10)*.

Secondary teachers should have a good understanding of context clues and teach them effectively until adolescent readers will use them independently in their everyday reading. It has been the writer's observation that the use of simple context clues is taught quite well in the primary and lower intermediate grades. In the upper grades and in high school, this important method of teaching vocabulary seems to be neglected entirely. Many college freshmen cannot recall having heard the term "context clue" in their high-school reading classes.

James Brown of the University of Minnesota, a recognized authority on vocabulary research, recommends the formula, "CPD," i.e., "Context, Parts, Dictionary" for teaching new words. Brown, in a scholarly lecture at the 15th Annual Meeting of the National Reading Conference in Dallas, Texas, stressed the great importance of introducing difficult and unfamiliar terms in context.

Many schools use with much success the EDL Word Clues series of programed vocabulary for grades seven through thirteen. This series presents each new word in a content lesson developed around topics of extreme interest for adolescents. Three programed learning frames present word clues and multiple dictionary entries for the mastery of each term.

Vocabulary Development through Structural Analysis

The breaking of words into smaller parts, into root words and affixes, should enable students to increase considerably their word knowledge. Massey and Moore recommend the study by secondary students of high-frequency-usage prefixes and suffixes *(9)*.

Brown, in his book *Programed Vocabulary*, presents "The Fourteen Words That Make All the Difference" in vocabulary growth. These fourteen words, according to Brown, "contain the most useful shortcut yet discovered to a bigger vocabulary" *(3)*. Brown's method seems promising for speedy vocabulary development.

Braam and Sheldon, too, recommend the intensive study by high-school students of root words, prefixes, and suffixes. *In Helping High School Students to Read Better*, the authors present the most frequently used Latin and Greek root words, suffixes, and prefixes for study in secondary reading *(2)*.

The mastery of syllabication and phonetic analysis remains a problem for both secondary teachers and students. The writer administered Dolores Durkin's *Phonics Test for Teachers* to some 200 elementary and secondary teachers. The study, not yet completed, shows distressing results. There are many teachers who do not know the most elementary generalizations of phonics and syllabication. It is these teachers who literally raise crops of non-readers every year.

Versatility in Reading and Reading Rate

Reading versatility in the senior high school has assumed tremendous importance. Adolescent boys and girls are assigned to read newspapers, magazines, textbooks, sourcebooks, cartoons, and various types of literature: novels, short stories, essays, dramas, and poetry. This wide range of reading materials serves the interests, needs, and goals of high school youths. A number of such goals or purposes were obtained by the writer in a secondary class in developmental reading. "Why do you want to improve your reading?" was the question asked. Here are some of the answers received:

to keep up with the news,
to learn to know myself,
to gain information,
to become an astronaut,
to understand new ideas,
to select TV and radio programs,
to learn to know boys and girls,
to understand new concepts in science,
to learn auto-mechanics,
to prepare outlines and summaries,
to prepare for hikes and tours,
to understand road maps,
to detect possible bias of writers,
to forget my personal problems,
to understand maps and graphs,
to cram for examinations,
to learn about romance and marriage, and
to learn to read faster.

There followed a lively discussion of the types of reading needed to accomplish the purposes listed. An approximate reading rate was assigned to each goal. The importance of satisfactory comprehension in speed reading was made clear.

Some of the students began to realize that they were not reading at the rate of which they were capable. There were others who needed much help with developing aids to rapid reading such as phrase reading and techniques of surveying, skimming, and scanning. They had to learn how to use the "sign posts" for comprehension: titles of reading selections, marginal headings, italicized words or phrases, and transitional expressions indicating sequence of ideas, additional information, and cause and effect relationships.

High school teachers may not take it for granted that the skill of a flexible reading rate can be understood and applied without definite instruction. Students need frequent guidance in selecting appropriate speeds for the reading of versatile materials for specific purposes.

A teacher of general science might ask his class to open the basic text to the table of contents and then proceed to determine with the students the approximate reading rate for each chapter. A unit on weather and climate can probably be comprehended at a much faster speed than can a unit on electricity and atomic energy. Students must learn that rapid reading is useful only to the extent that they can comprehend various types of materials while reading for a specific purpose.

Not many high school students understand the skills of skimming and scanning. The term "skimming" is used to describe the process of quickly surveying a reading selection to get a general conception of the purpose of the writer and the structure and key ideas of the material.

The term "scanning" designates rapid reading for specific information. The reading process of scanning may be compared to scanning the shelves in the library for a certain book or the shelves in a dry-goods store for certain articles. When scanning reading materials, students know what they are looking for; they do not dwell on information irrelevant to their purpose. There are many students who have not learned to scan the table of contents and the index of their textbooks and others references. They leaf aimlessly through their books and give up in disgust at not being able to find what they want or need to read.

The daily newspaper lends itself very well to the teaching of skimming and scanning. Editorials, national and foreign news, want ads, cartoons, information on stocks and bonds, society news, etc., are generally found on the same page day after day. Efficiency in skimming and scanning make it possible to read several papers daily. The habit of keeping abreast of local, state, national, and international developments in all aspects of life should be cultivated in the senior high school. Indeed, this habit must be developed from kindergarten through college if we may hope for its survival after the formal years of education.

In her survey of reading skills of fourth graders through adults, Helen Stolte Grayum showed that the ability to skim was not well learned. Wide differences in this ability were found at each grade level *(8)*. The results of this research indicate that schools must do a better job of teaching students when and how to read faster.

The terms "skimming" and "scanning" are foreign to many college freshmen. When entering college, most students seem to have but one comprehension rate—slow or fast, for a great variety of reading purposes and materials. If the same students had learned in high school how to "shift gears" in reading, they would experience fewer difficulties in completing reading assignments in college.

Summary

This article has presented a brief study of the development of two high school reading skills: vocabulary knowledge and a flexible reading rate. Vocabulary knowledge is judged so important as to warrant the recommendation by the writer of a systematic study of words in all high school disciplines. The real problem in speed reading is the difficulty of adjusting the rate of comprehension to the purpose for reading and the difficulty of reading materials. Both skills, vocabulary knowledge and a flexible rate of comprehension, can be attained through excellent instruction by well-prepared teachers who are interested in opening to young adolescents the wonderful world of books.

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PRESSING PROBLEMS

A. PRIMARY LEVEL

1. Policies Determining Which Young Children Are Ready

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IN ORDER TO approach this topic with a similar frame of reference, we must look first at the definition of two words basic to our area of study. First, what is a policy? Webster's Dictionary defines the term as a general notion, to regulate, and not a fixed system or hard rule. What is readiness? Russell *(9)* describes it as a composite of physical, mental, social, and psychological factors plus information, attitudes, and abilities gained through experiences. In general there are two ways of looking at readiness. One involves formal instruction that refers to teacher-directed reading activities which are arranged for children who seem to be ready to read. The other is to consider readiness as all those informal reading activities which are self-initiated and which the child does naturally. References to readiness in this paper will be based on the former—that of considering readiness as a teacher-directed activity. While most schools tend to include both formal and informal activities in a reading-readiness program, there does seem to be more emphasis in one direction or the other, depending on the policies to which the school subscribes.

Which policies do public school systems follow in determining reading readiness? After considering this question, the writer mailed questionnaires to various school systems in her geographical area. The responses indicated that no one policy was used by any two schools. In fact, most schools were frank to admit that they had no established policies pertaining to readiness for beginning reading. Some schools answered that they were writing new policies in relation to a new reading series. Many returns indicated that schools turned to readiness tests for help. Other schools used a combination of readiness test results and teacher's appraisal of the physical, social, emotional, and intellectual factors which influence readiness for beginning reading. No school reported that a six-year-old was taught formal reading merely because he had passed his sixth birthday.

Moreover, in a review of the literature, no established policies were found, no principles were clearly defined, and no specific plan was given to determine which children were ready to read. However, it was evident that policies are being influenced by pressures. Suggestions for policy making are rarely made by public school officials but rather by the press and parents who pressure and push for early beginning reading. These pressures appear to be mounting at an alarming rate in speeding-up activities in reading instruction for *all* children. The demands for excellence in education have intensified the push for younger readers and the cry seems to be, "Let's have more and let's have it sooner."

The press influences policies by turning out large amounts of sensational reports suggesting that young children who are reading early are something "marvelous and miraculous like space travel." One recent publication, *How to Teach Your Baby to Read,* written by Doman *(2)* is intended as a guide for parents. Doman encourages parents to teach their babies to read at the age of two years or at the tender age of ten months if the mother is clever enough. He says, "Tiny children not only want to and can, but should, learn to read." But why should they? Can anyone present a sound psychological reason why a baby needs this social tool?

Many policies regarding reading readiness spring from the strongest pressure group in the world. This group consists of the many "child worshipers," the parents, who are pushing for early reading. They are looking for a nursery school or a tutor to insure an early reader before kindergarten. With an early start in reading they are confident that their children will be insured of success in school. Parents, many of whom feel guilty because they have not achieved, are achieving through their children. In our society an early reader has become a status symbol as parents push their children along the shortest route from the cradle to the ivy-league college. It is a matter of prestige and pride to boast that a child has learned to read before entering school.

Some policies are being made as a result of the findings of research studies. Early reading is encouraged by Durkin *(4)* who studied 49 California children in favored homes who learned to read before first grade. Her fifth-year report of the achievement of these public school boys and girls continued to favor an early start in reading. Another well-known advocate of early reading instruction is Moore *(7)* who uses an electric typewriter to teach preschoolers to read. Moore is confident that early reading is beneficial for a child's general intellectual development. A third example of early reading success is the study described by Downing *(3)* of the University of London. He reports that young children of the Infant School in England have been taught to read using the Initial Teaching Alphabet. This augmented alphabet of 44 symbols was devised by Sir James Pitman to be used only for the beginning stages in reading.

Still another research project that is being followed closely by reading specialists is the Kindergarten Study of the Denver Public Schools *(1)*. Using 4,000 pupils, the Denver officials have provided instruction in beginning reading to kindergarten children since 1960. A parallel study was also initiated to determine how effectively parents could provide reading-readiness activities for their preschool children. These research projects are not in their final phases as indicated by a recent correspondence from the Denver Public Schools. It is reported that "extended trials are being given some of the activities which are designed to teach skills basic to beginning reading" *(1)*.

Perhaps at this point you are wondering whether early reading is desirable. Are early reading skills of long-term advantage or a disguised handicap? One answer comes from Smith *(10)* who found "that the bulk of the evidence that we have at present indicates that pressuring children to read is of no advantage in the long run and that it may have harmful effects." Moskowitz *(8)* gives an answer by referring to a follow-up of Durkin's study in the third grade that showed that the brightest two-thirds had not maintained their advantage . . . the bright non-reading entrants had gradually caught up with them. The lowest third of the children still apparently maintained some advantage." Even Durkin *(4)* pointed out that "these findings do not necessarily provide support for earlier school instruction in reading." Another answer came from Hampleman *(5)*. In his 1959 study of the achievements of early and late school starters when they were in grade six, he reported that "children have considerably better chance for success in reading by starting to school a few months later, rather than a few months earlier." His second study with 323 sixth-grade pupils in Illinois favored the older pupils and was statistically significant.

With such a wide movement for earlier reading instruction, it might be wise for school people to verify or refute the validity of these pressures by examining the bases for determining a child's readiness for beginning reading. This age is no time for snap judgments, but time to make important, intelligent decisions that will guide us in making needed changes. No policy should be established until longitudinal studies have been investigated to discover the most effective ways to decide which children are ready for formal instruction in reading. It is time to study current findings in child development because the experts remind us that "the child in his own individual right, which includes his own rate of growth, has been neglected in these reading evaluations" *(6)*. The best screening techniques are needed to determine which children are mature enough and ready for formalized reading work. Some specialists suggest a realistic appraisal of each child's readiness by using a behavior test to determine the child's total developmental level and his level of performance. Ilg and Ames *(6)* consider a child's behavior level rather than his age in years as the correct clue to what shall be offered or presented him. Such information would include a study of each child and such a study is necessary if we are to be even reasonably certain of a child's readiness to read.

It is also time for teachers to determine each child's stage of readiness and base his instruction on these carefully determined individual needs. Some bright children are clamoring for reading at an early age. They must realize that there is no reason why these children should not be given special attention in an informal, relaxed program. The children who show that they want help or who demand a chance to learn to read should receive guidance individually. Let me strongly emphasize that schools must also recognize and respect those children who show no interest in reading, even though they may appear ready because they seem socially mature. We need to realize that because some children learn to read at surprisingly early ages is no proof that *all* should. There is no one approach for *all* children. Children cannot be "homogenized."

Teachers must learn to take cues from children and respond to their separate needs. Some children may not be ready for a formalized program until much later than we would ordinarily expect. For example, the socially disadvantaged are verbally impoverished and need language-learning experiences before formalized instruction in beginning reading. These children must not be overlooked or underestimated simply because the rules do not apply to them. We must turn to these children to find out the language they understand and relate the reading instruction to their spoken language. Many of the cues and clues that suggest appropriate reading experiences come from the children. No manual, guidebook, or yearbook can supply the precise and exact answers to the problems a teacher faces in working with children who are not quite ready for formalized instruction.

In addition, a teacher must consider a combination of findings with the readiness test results. As no test is infallible, she should use ratings, readiness inventories, and even checklists for parents. Such a checklist of developmental skills could provide a systematic means for parents to assist a teacher in appraising a child's readiness for school. Seeking parent involvement has been recommended by Russell *(9)* when deciding which individual is ready to start formal reading.

Further, we must realize, the problems that such a responsibility raises are complex and difficult to solve on an individual basis. The teacher's tasks involve selecting a readiness test, diagnosing each pupil's level of growth and development, and checking the kinds of experiences and skills each child has had and needs for beginning reading. In making these decisions she finds many unanswered questions. Which readiness test should be used? Do tests measure all factors involved? Which prereading skills are necessary? What kinds of experiences are needed? Should the rating scales be followed rigidly? Should she make all final decisions? Perhaps she needs help from a carefully selected, representative group composed of a reading consultant, a psychologist, the principal, and a parent.

Obviously, there are no easy answers and no magic formulas. Perhaps the reports from the U. S. Office of Education First-Grade Reading-Readiness Programs will aid the teacher in making intelligent decisions. She must remember that such decisions will make the difference for individual learners for the rest of their reading lives. This fact suggests that any policy be exceedingly flexible and include the basic principle that real teaching is meeting each child where he is and helping him to grow.

When the schools decide on policies to determine which children are ready for reading instruction, they should plan their program and clearly explain the goals to the public. The schools must abide by the principles of sound reading instruction and refuse to be swayed by pressures. They must meet pressures with positive action rather than defensiveness and not be caught in the controversy. They must accept each child, give him the reading activities he needs when he needs them, and protect every child from the "swings of fashion in public opinion."

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2. Conflicts and Confusions in i.t.a. Experiments

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Research on i.t.a.

READING TEACHERS who are interested in the Initial Teaching Alphabet (i.t.a.) should note that by 1966 numerous different research projects involving i.t.a. were in progress and it is important to discriminate between them and to compare them critically. For example, educators should ask these questions of any i.t.a. research project before accepting its supposed findings:

1. Has the research been conducted for a sufficient length of time to reveal any effects of i.t.a.?

Several of the people who conducted experiments in the first-grade studies sponsored by the U. S. Office of Education Cooperative Research Project published conclusions after less than one year. This period is too brief a time to evaluate a program such as i.t.a. Gans *(5)* was quite right in 1964 in warning that, "The i.t.a. approach to reading is at its beginning. As yet there are not enough results from the experimentation going on to warrant the extravagant claims that are being made for it. Only broad and longitudinal evaluation which yields reliable conclusions can determine its permanent place in the teaching of reading." I would add that not only are the extravagant claims (which I have frequently deplored) not warranted but neither is the unthinking dismissal of i.t.a. after a few months of trial warranted.

In Britain we were first to begin research on this innovation in reading; and now that we have been conducting research on i.t.a. for nearly five years, I believe that we are in a position to draw some valid and reliable conclusions. But I must agree that Gans' warning against too hasty conclusions does still apply to the research reports so far available from American research on i.t.a.

2. Is the research scientifically controlled?

Many of the experiments currently being conducted with i.t.a. have a serious fault in their design. In comparing one approach with another it is essential to make sure that all major factors in reading are controlled except the one you are investigating. The contrast to be made is between i.t.a. and traditional orthography (t.o.). Therefore, in the i.t.a. classes and the t.o. classes in a research project everything else of significance in reading should be as nearly the same as possible. But, in almost all the i.t.a. researches currently being conducted one major variable has not been equated in the i.t.a. and t.o. classes. This variable is the actual language content of the reading program. For example, Fry *(4)* compared i.t.a. with his Diacritical Marking System (D.M.S.) and the Sheldon basal reader series in t.o. The D.M.S. materials were the Sheldon Readers with the print altered according to the D.M.S., but they were not identical to the t.o. series, because they were sub-standard in their lack of color in the illustrations. What is much worse, the i.t.a. materials were not the Sheldon Readers printed in i.t.a. but an entirely different basal series by Mazurkiewicz and Tanyzer *(9)*. Thus, not only were the printing systems different but also that major factor—the content of the teaching materials—was varied, too; and, therefore, one cannot tell whether any differences that are found (or any failures to find differences) are caused by the print variable or by the materials variable.

In all the British experiments on i.t.a. the same basal series (Janet and John by O'Donnell and Munro *(10)*) has been used in both the i.t.a. and the t.o. classes. Both versions—i.t.a. and t.o.—were identical in format and context, thus ensuring the same quality of production for the experimental and control groups. Therefore, any differences found can be attributed with greater certainty to the change of alphabet. This plan is being followed also by Robinson *(12)*. In her study she is using i.t.a. and t.o. editions of the Scott, Foresman basal series which are identical apart from the change of alphabet. Taylor *(13)* at the University of Ibadan in Nigeria is also using this scientific approach of having an identical series in i.t.a. and t.o. for the experimental and control groups.

Most other studies, however, have failed to control this variable and it will, therefore, necessarily be difficult to evaluate the effects of i.t.a. as compared with t.o. in such "experiments."

3. What went into the computor?

Whenever a research is reported in terms of a very large number of pupils and with very complex treatments of the data, educators should be even *more* cautious in their approach to generalized conclusions because there is a danger that the size of the sample or the impressiveness of the statistical operations will divert attention from what is far more important—what exactly was done by the teachers in their classrooms and what exactly were the experiences of the students. It must always be remembered that the value of the statistical end-product of research depends most on *what was put in* by way of educational treatment.

4. Are the criteria of evaluation relevant?

Several i.t.a. research reports published recently have used irrelevant criteria for evaluating i.t.a. They have failed to understand the whole nature and purpose of i.t.a.

I.t.a. is what linguists call a "writing-system." That does not mean a system for teaching writing. What it does mean is a system for writing (or printing) the spoken language, i.e., a system of "ink" for coding the system of "air." Because i.t.a. is a writing-system, the only legitimate comparison that can be made in evaluating i.t.a. is between the i.t.a. writing-system and some other writing-system for English (e.g., t.o.).

Hahn *(7)*, for example, compared i.t.a. with the Language-Experience approach and the basal-reader approach. But this comparison is not meaningful because you can teach the Language-Experience approach using the i.t.a. writing-system or the t.o. writing-system and you can use basal readers printed in i.t.a. or printed in t.o.

Also, to find out the effects of i.t.a. you not only have to teach the i.t.a. students in i.t.a. but you have to *test them in i.t.a.* The only scientific way to tell whether i.t.a. prevents word-recognition difficulties is to teach an i.t.a. group and a t.o. group using the same sample of the English language for their basal training and then to test them on an identical sample of the English language printed in i.t.a. for the i.t.a. students and in t.o. for the t.o. students. Of course we want to know about transfer later and *then* we must test i.t.a. students in t.o., but the really important issue is completely obscured if i.t.a. students in the beginning stage are tested in a system which they have not been learning.

5. Was it really i.t.a. that was tested?

Educators should also be cautious in accepting the label "i.t.a." as describing what has been taught in some of these projects. Were the teachers adequately trained? Were the classes fully equipped with i.t.a. materials? i.t.a. teaching apparatus? i.t.a. library books? (Some idea of the wide range of i.t.a. books actually available from over 30 different publishers can be obtained by studying the complete list of *i.t.a. Books for the Teacher and the Child* published by the National Book League, 7 Albermarle Street, London, W.1., England.) Did the teachers use i.t.a. long enough? These are some of the questions I would raise about several of the "i.t.a. experiments" that have been described recently.

Early Word-Recognition Difficulties Are Reduced by i.t.a.

On the basis of more than four years of careful scientific research and experimentation with i.t.a. in British schools, it may now be concluded with certainty that in comparison with the simplified and regularised i.t.a. system t.o. is an important source of difficulty in the beginning stages of learning to read and write in English-speaking countries. Our research shows quite conclusively that t.o. as compared with i.t.a. under parallel normal classroom conditions is a serious handicap to teachers and children. The complexity and irregularity of t.o.

1. causes slower progress through the basal-reader series,
2. reduces word-recognition attainments to between about one third or one half of what they can be with a more simple and more regular system such as i.t.a., and
3. severely limits their written vocabulary and their creative abilities in written composition.

I have given a complete description of i.t.a. previously (Downing, 2), but, briefly, the superior effects of i.t.a., taken as an example of a simplified and regularised system for English, are due to

a. the reduction in the volume of learning
    (i) of whole-word configurations in the Look-Say aspect (e.g. *doll* only not *DOLL*, *Doll*, etc.).
    (ii) of characterisations of sounds; e.g., œ only as in tœ, not *o, eu, ow, ough, oa, o.e.*, etc. *no, sew, flow, though, boat, note.*
b. the greater regularity of the i.t.a. code:
    (i) i.t.a.'s characters generally (but not absolutely invariably) represent only one sound, e.g., *o* usually represents the vowel sound common to *on, off, hot, dog, lock*, etc., and not quite different sounds as in t.o., e.g., *done, one, bone, women*, etc.
    (ii) i.t.a. removes the grouping operation necessary in such words as *chip, chop, chat*, by linking the *c* and *h* together in the print. In words such as *bone, rote, dome*, the linking of *e* to *o* reduces the complexity to an even more important extent.

The significance of the difference between i.t.a. and t.o. in the beginning stages of reading and writing is great and cannot be ignored. The full details of the results of the British research on i.t.a. will show this variation in a major report (see Downing, 3) which is now being printed.

The Transfer-of-Learning from i.t.a. to t.o.

However, although i.t.a. has proved so successful in preventing word-recognition difficulties in beginning reading, it should be noted that I have expressed this finding as a criticism of t.o. and not as an endorsement of i.t.a. The important point to understand clearly about our research in Britain is that it was designed from the beginning as a basic investigation of the influence of t.o. on the education of our boys and girls. The i.t.a. is only one example of how to simplify and regularize English orthography. Now that we know that the way in which English is written or printed really makes a difference in the teaching of reading, clearly, "the sky's the limit." Also, one must recognize that there are other ways of circumventing the difficulties of t.o. without changing English spelling. For instance, one can use t.o. but rigorously control the vocabulary to avoid using any words which have complexities or irregularities (e.g., Bloomfield and Barnhart, *(1)*), or one can use color as a secondary coding device (e.g., Gattegno, *(6)*, Jones, *(8)*).

If spelling reform for English is not a practical proposition even though we want a simplified and regularized system for beginners, then that system needs to be designed to allow easy transition to t.o. Pitman *(11)* claims that he has designed i.t.a. in such a way as to ease transition from i.t.a. to t.o. by maintaining in i.t.a. a close similarity to t.o. in respect to the configurations of the top half of whole words and phrases.

In the British research we have investigated the success of Pitman's design in several ways; and it may be said now that as far as our research program has progressed, it seems clear that by the end of the third year of school the i.t.a. pupils have attainments *in t.o.* word recognition and reading accuracy which place them about six months in advance of children who have not used i.t.a. in the beginning stage. However, this result does not necessarily represent the greatest degree of improvement that a transitional alphabet system could bring in reading. This line of research is still "at its beginning." In the years ahead the needs for research in this area will be very great indeed, and many questions need answering: can we shape an even more effective transitional alphabet using the techniques of the experimental psychology laboratories in conjunction with field trials in the schools? can improved materials be developed to increase the effectiveness of the transition phase? can new methods of teaching be devised to reduce to the minimum any loss of reading ability at the transfer stage? for how many months or years should i.t.a. be used? what is the best time to make this transition from the transitional system to t.o.?

These are the kind of questions that are occupying us at the Reading Research Unit in London, and these are the practical problems in which the 1,600 British teachers currently using i.t.a. are interested. The i.t.a. approach has run the gauntlet of initial trial and much criticism, and it has proved itself worthy of serious attention. Now that we know that this new area of innovation is so promising, let us recognize that here is a frontier in reading which is just ready to be pushed forward. Here is a vast area waiting to be explored and developed.

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B. UPPER ELEMENTARY LEVEL

1. Moving Faster Toward Outstanding Instructional Programs

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TO ACHIEVE OUTSTANDING instructional programs in the intermediate grades, we would have to correctly identify the real problems facing us or, in a slightly different context, we would have to recognize the barriers which have up to now kept us from achieving superior programs. For years we were relatively safe in repeating the slogan "we have no problems in education which couldn't be solved with adequate financial support." Now we know that money alone won't save us; for when Federal funds inundated education in 1965-66, we found it was the lack of creative ideas relating to the educational process that was the stumbling block.

The departments of instruction in the various states were literally swamped by money that was to be dispersed to the local school districts. The major response pattern of most school systems was to (1) fall back on outmoded, obsolete in-service programs, where a consultant was commissioned to come and talk at and to teachers; (2) buy gadgets and mechanical devices; and (3) stock up on books and a varied assortment of printed materials, primarily because they were available. There was a naive hope that inadequately trained teachers, many of whom had no real drive or desire to change, could be retooled in six to eight one hour in-service meetings: this hope, despite the body of data we have that both teaching and learning the reading process is a very complicated process.

Fortunately, or unfortunately, many of the failures of the crash programs in reading will never be exposed in all of their sad details. In some instances the facts were glossed over a bit and in other cases the deficiencies in the program in relation to the realities of the late 1960's were not even recognized.

The better programs may well have been the intensive summer institutes which featured systematic instruction in the reading process and extensive professional reading by the participating teachers. However, it is likely that in these programs a large per cent of the energy of the trained personnel was siphoned off into proposal writing, filling out forms, flying from one to another instructional arena, and other such activities.

Materials and Methodologies

In discussing how one moves toward outstanding instructional programs it might be well to clear the decks by not cluttering our thinking with excess baggage or non essentials. We may have to melt down a few of the golden calves we have worshipped in the past. For instance, do we need more research of the type we have been doing in order to arrive at outstanding instructional programs? Would reaching this goal be inhibited if we had a five-year moratorium on research which purports to measure the relative superiority of various materials and instructional approaches?

Might it be time to debate the proposition that even massive research programs which follow will never provide us with a blueprint for attaining outstanding programs? The affirmative case for this proposition would be quite strong if analysis reveals that the questions we are asking in this type of research are not closely related to the barriers which presently inhibit our progress in achieving outstanding programs.

To achieve outstanding reading programs we will have to dispose of two other golden calves or possibly just articles of faith; namely, that *new* instructional materials, or "newer approaches" to teaching reading, will be the foundation upon which outstanding instructional programs will be built. These articles of faith will die hard because they represent simple solutions to complex problems. Both educators and critics of education seem to have a predilection for simple solutions.

This statement does not imply that either group shows lethargy as we often fight vigorously over minute points of doctrine. Examples which presently engross our energies include modified alphabets, non-graded schools expected to function in a grade-level system, talking typewriters, literature in boxes, programed workbooks, projecting materials on screens, phonics emphasis beyond the call of reason, phonics emphasis within the bounds of reason, taking pictures out of beginning basals, giving awards for excellence of pictures in trade books, prescribing and proscribing practices and materials, jumping on bandwagons, and abandoning sinking ships. All of these are examples of honored educational rituals which have little impact on achieving outstanding instructional programs in reading.

Practice Must Reflect What We Know About Learners—and—Learning

The preceding discussion has attempted to cast doubt on the efficacy of a number of practices which presently absorb much of our energies. The following proposals rest on the premise that outstanding instructional programs in reading will be achieved *only* through outstanding instruction.

There is an old axiom which cautions that in many situations "what we know may inhibit our growth," the implication being that we can become wedded to ideas which are outmoded. On the other hand, it might be said that the major problem in teaching is that our practice never catches up with or reflects what we actually know.

If we are to move rapidly toward outstanding instructional programs, we must develop practices which are totally in accord with what we know about pupil-learning and what we know about reading and its relation to all school learning. Until we arrive at this level we will have a tendency to always be looking for panaceas, for new materials, and new approaches. We will sail aimlessly in many directions because our sails will be filled with the winds of many doctrines. Let us state briefly what it is we know that is important.

Learning to read is a developmental process, continuous and on-going which no one, neither pupil nor teacher, ever completely masters. Every reading skill must be systematically extended as the child is confronted with more difficult reading tasks.

Pupils as readers, even within the same classroom, are not clustered around one point on this developmental continuum. All pupils have need for systematic instruction if they are to grow in reading efficiency.

Differentiation of instruction in every classroom is the chief identifying characteristic of a good instructional program. In an *outstanding* instructional program, differentiation of instruction would be even more noticeable.

Pupil diagnosis is the key to differentiation of instruction since logical instruction must parallel the needs which students have at the moment. In essence, differentiation of instruction must be based on reliable knowledge of each pupil who is to partake of the instructional offerings. Thus, diagnosis cannot be synonymous with guesswork or intuition. It cannot be attempting to fit this year's students to last year's lesson plans, even if last year's instructional program was highly successful. Diagnosis must be ongoing, not the mere administration of standardized tests in September, midyear, and June.

Achieving Outstanding Programs of Instruction

This goal will be reached only when instructional practices are based on the above well-known facts which relate to learners and learning. Paying lip service to these principles, as we have done in the past, is not enough. Principles which are not translated into practice will not change teaching or learning. Outstanding instructional programs cannot just happen; they will emerge only as a result of significant changes in teacher behavior. A few needed changes will be briefly outlined.

Adequate teacher training. The fact that the professional training of elementary teachers, as this training relates to teaching reading, is grossly inadequate was documented in the recent study by

Austin.[1] While shocking, this data should not have come as a surprise to teacher-training institutions. Practices related to the training of teachers of reading in each particular institution were well known to that institution's staff. Unfortunately, few programs have been materially changed since publication of this Harvard-Carnegie study.

The need for knowledge in one's field is not questioned in other areas of teaching, such as history, mathematics, literature, or science. However, providing the training which would result in extensive knowledge of the reading process seems to have been waived both in pre-teaching training and in in-service programs. No one would argue for a moment that either training institutions or local school systems *want* inadequately trained teachers of reading. But both apparently would accept this outcome rather than radically change the status quo in training programs.

It is no exaggeration to state that a large per cent of elementary teachers are unfamiliar with much of the pertinent research in reading. Their training did not equip them to interpret research or transfer research findings into classroom practice. Reading teachers do not distinguish themselves as "reading teachers" insofar as the professional literature is concerned. Until this deficit in training and its commitant depressant effect on professional growth is remedied, outstanding instructional programs will continue to be limited in number.

In-Service—Growth Through Sharing

In the past, elementary teachers have tended to be professional isolates, each an island unto himself. As a result, teaching tends to become stagnated and uncreative with teachers repeating the same approaches year after year. Despite the grossly inadequate in-service training of teachers, few communities have worked out meaningful in-service programs in which teachers meet together as professionals to share ideas and teaching techniques, or discuss research and professional materials.

The inability or disinclination to establish such an in-service format or climate for growth is the cause of great waste in American education. It is a truism that significant differences exist among teachers and it would be illogical to assume that teachers cannot learn from one another. Many teachers are not aware of effective techniques used by other colleagues in the same school system. This statement is true because there is little communication of a professional nature among teachers.

While it is possible that individual teachers might evolve methods of sharing, comparing, and growing, this system is not likely to occur on any large scale. Professional isolation has become a deeply ingrained characteristic of elementary teaching. There is little likelihood that teachers operating "on their own" can reduce significantly the waste of resources in their community. What is needed is a plan worked out cooperatively by teachers and the administration. Participating teachers should be volunteers rather than prisoners of an edict. A few teachers who care about professional growth constitute a much more powerful leavening agent than does an assembly of 100 per cent of the teachers, some of whom fear change to such a degree that they will consciously or unconsciously scuttle any attempt at growth through sharing. Until something is done on this front we will not move faster toward outstanding instructional programs.

Purposeful teaching. We make much of the fact that the child's reading must be purposeful or goal oriented, yet much of our actual reading instruction must appear to the child to be related only to *learning* to read! "Learning to read" takes place in one curricular time slot. Throughout the rest of the day children *do* arithmetic and *study* geography, science, and health. Instruction in this setting has separated the teaching of reading from the purposes for which we teach children to read. The number of outstanding instructional programs will not increase appreciably until reading instruction is an integral part of the everyday reading tasks children are asked to do.

It is easy to see how the dichotomy of "learning to read versus reading to learn" emerged. This statement reflecting sequence rather than integration accurately reflects much school practice. Educational philosophy, on the other hand, emphasized that "one does not learn to read at one period of development and read to learn at another; but all students do both at all times." Again our philosophy is sound but in practice it is, to a large degree, ignored.

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[1] Mary C. Austin, et al., *The Torch Lighters: Tomorrow's Teachers of Reading.* Cambridge: Harvard University Press, 1961.

Creative use of materials. The past few years have witnessed a tremendous increase in reading materials dealing with a vast array of topics and available at all reading levels. In addition there has been a proliferation of basal materials which now provide schools with a variety of approaches to reading instruction. Becoming conversant with all of these materials is in itself a challenge, but more important to instructional programs is the creative and intelligent use of those materials which happen to be the vehicles of instruction.

No materials, whether they be basals, trade books, packaged programs, or subject-area textbooks, can in themselves assure against stereotyped, unimaginative use. An outstanding instructional program is not achieved simply because a certain set of materials is adopted. In fact, the same materials will be found in both good and poor programs. In many of the latter cases it will be found that teachers tend to be dominated by materials or methodological loyalties.

Outstanding instructional programs are built on the right combination of creative teaching coupled with appropriate materials and methodology. Each of these factors has considerable influence on achieving a proper climate for learning. Superior teachers will probably not see themselves as partisans of one methodological approach to the total exclusion of others. They will not debate the relative superiority of language experience, basal, individualized, or programed reading, but will use concepts, procedures, and materials from these and other instructional approaches. They know that *teaching* is the most highly weighted of all of the factors involved in outstanding instruction.

If one sought for a capsule description of American reading instruction during the past decade, the plausible one could well be "the frenzied search." The search was based on the false hope that there just might be a panacea for the ills which beset reading instruction. This false hope leads to many unproductive responses such as excessive concern with trivia, unwarranted loyalty—or hostility—to labels without concern for substance, or childlike faith in "breakthroughs" which later proved to be more of a triumph for Madison Avenue than for children in the classroom. The frenzied search was an era in which no significant changes occurred.

Out of disillusionment may come increased maturity. We may give up the search for the cheap solution and accept the fact that instructional programs never rise above the level of the instruction found in them. It might be well to think not of moving *rapidly* toward outstanding instructional programs but rather to *start* moving.

2. Eliminating the Practice of Using Non-Trained Personnel for Remedial Instruction

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THE PRACTICE OF using non-trained personnel for remedial instruction is a pressing concern nationwide to any person desirous of improving reading instruction. Anxieties are high! Fears are many! Such feelings are understandable when one "takes stock" of how frequently one hears, "What is meant by remedial reading? What kinds of experiences, training, and competencies are expected of remedial reading instructors?" Even though descriptive replies continue to be offered by "the experts," their verbage is not a satisfying influence on the general school populace. Thus, confusion prevails and perplexities continue to grow.

Prevailing Confusion

Because of the prevailing confusion, the writer felt it prudent to review the literature and obtain the views of a number of successful practitioners prior to discussing any phase of remediation, especially the phase of *eliminating the* *use of the many non-trained personnel who are posing as remedial instructors.*

Of course, it was not surprising to find wide variations expressed in the literature as well as among the thinking of the practitioners. To the query, "What is meant by remedial reading?" one finds any of the following thoughts: designing a kind of teaching program within a school to "remedy" a reading defect; providing individual instruction for children within a school situation; teaching individually or in small groups children below their age or grade norm in reading within a classroom situation or within a school situation; planning a teaching program based on some special or unusual device; providing children with special clinical service; and so on! As to be expected, the same kind of "muddled" thinking equally prevails when researching the question, "What kinds of experiences, training, and competencies are expected of remedial-reading instructors?" Yet, let me hasten to report that when one analyzes the area of remedial-reading instruction, one discovers rather quickly that remediation in this area involves no feature that is not included in good "developmental" classroom reading under the guidance of well prepared and efficient classroom teachers. But, to be quite frank, since the situation is a mass of misunderstandings and uncertainty, it is apparent that some degree of remedying the general confusion is in order.

Remedying the Confusion

The time is certainly ripe for some group or organization, whether it be at the local, state, national, and/or international level, to remedy the existing state of confusion as to the clarification of the term "remedial reading" and as to the qualifications of the remedial-reading instructor. Although these terms served a practical purpose forty years ago, they certainly are misleading in 1966. But, regardless of the terminology used, it would appear to be good strategy to draw up a list of titles of the sundry specialized services we find in the field of reading. With the list drafted, the following procedural steps appear to be appropriate:

1. define the function of each reading specialist;
2. list the qualifications to be met by each reading specialist;
3. outline a program of training that is needed to achieve "expertness" in each area of specialization;
4. suggest standards for certifying each particular reading specialist; and
5. plan a program of orientation with school administrative officers to implement the professional program that has been developed, remembering that the professional designers are not usually the professional employers.

Will the implementation of the professional program described above eliminate the "quackery" existing in the reading profession? Of course, it won't! Although such a program may help, horizons must be extended.

Eliminating the Non-Trained

Basic Warnings Must be Heeded

If we, as students of reading, plan a conscientious effort to eliminate the "non-trained," then there are certain warnings that must be heeded—heeded by those who wish to identify themselves as remedial-reading instructors and those who are seeking the services of such specialists. A list of some of the "warnings" will be suggested:

1. All schools should avail their staff with the services of a person who is thoroughly prepared to help all school personnel solve most of the reading difficulties found in the typical school of today. Whether the person is labeled "remedial-reading instructor" makes little difference. It is the job he does that really counts!
2. The major aim of a remedial-reading instructor should be to plan a program of prevention rather than a program of correction. To fulfill this aim, in-service training is needed which will increase the knowledge, insights, and skills of classroom teachers in dealing with all types of readers.
3. The remedial-reading instructor should be interested and well informed in all fields of the curriculum and teaching. Too frequently the term "remedial reading" has been "oversold" as the *come all/cure all treatment* when a minor revision of the curriculum and/

or teaching procedures would solve many of the so-called "remedial reading problems." In other words, the effective remedial-reading instructor should play a major role in studying, planning, implementing, and revising the curriculum.

4. The remedial-reading instructor should possess a high level of insight and skill in diagnosing and teaching *all types* of readers. Too often it is the able readers who are the most neglected.
5. The remedial-reading instructor should be able to help many types of milder "clinical" cases and be able to recognize the need for further clinical help of the few boys and girls who require treatment of a more specialized nature.
6. The remedial-reading instructor should be alert and ready to challenge the fanatics, faddists, and popular columnists who are invading today's reading world. 1966 is no exception for reading panacea "hawkers."
7. The remedial-reading instructor should assume a major role for studying and improving the administrative structure of the particular school system in which he works. Of all personnel, he should be in the best position to do so.
8. The remedial-reading instructor should be able to interpret, plan, supervise, and carry on research. Although classroom teachers should be involved in research activities, most are not equipped and do not have the time to digest or design on-going research projects.

If a person is to heed to any or to all the suggestions listed, then he must receive some degree of assurance that institutions of higher learning and state departments of education are ready and willing to assist and/or certify him as a remedial-reading instructor. Assured *excellence* must be the key to any program.

Excellence: Its Limitations and Strengths

Whenever excellence is to be achieved, limitations as well as strengths can be expected. However, there are certain guidelines which can be offered to any school or granting agency. Permit me to suggest a few:

1. The procedures and the details of the machinery necessary to prepare qualified remedial-reading instructors are not easy. Naturally, these will vary from institution to institution as well as from state to state.
2. State departments of education must decide whether they desire to certify remedial-reading instructors. If they elect to do so, then they should employ qualified reading specialists at the state level to help with the following:
   a. to interpret the requirements as "set forth" by the state certifying group;
   b. to assist in implementing any requirements mandated by the state;
   c. to choose a state-wide advisory committee which will participate in continuous evaluation of the effectiveness of any requirements mandated by the state for preparing remedial-reading instructors. The members of such a state-wide advisory committee should be representatives from the public schools, from institutions of higher learning which prepare remedial-reading instructors, and existing professional reading groups within the state.
3. Teacher-education institutions which desire to prepare remedial-reading instructors should make certain that they are adequately staffed and equipped to perform the task. One way to limit excellence is to be understaffed and non-equipped!
4. Institutions of higher education and state departments of education should utilize every reading-resource person who is willing to donate his time to developing and winning approval of established requirements. The only way to achieve excellence in requirements is to have excellence in team work.
5. Flexibility should be allowed when implementing guidelines.
6. Institutions of higher learning and state departments of education should "spell out" their concept of "remedial reading." Such action will be helpful to programing at the graduate-

school level and to the school administrators who are selecting remedial-reading instructors.

7. Sufficient time should be provided for a remedial-reading program or for any requirement for remedial-reading instructors to be initiated, implemented, and developed before assessing its worth. Hasty decision-making may lead to disaster.

You may say that the suggestions outlined above are ones leading to excellence. They are. But, for whatever the degree of excellence you aim, you must recognize that the elements of time and human behavior serve as gauges for measuring limitations as well as strengths.

Last Thoughts

How can we eliminate the practice of using non-trained personnel for remedial reading instruction? This question is not an easy one to answer. However, there are some "rights" and "wrongs" that are considered substantial.

First, the appointment of remedial-reading instructors should be made on the basis of professional preparation, experience, and competency. No one can disagree with this statement as a "first."

Second, professional standards should be "set" by a group representing students of reading and administrative-supervisory leaders. By doing so, terminology and guidelines for professional preparation, experience, and competency can be defined. This knowledge would be an asset to groups preparing remedial-reading instructors as well as to those in administrative leadership roles who are hiring these instructors.

Third, every remedial-reading instructor should have his responsibilities clearly defined prior to accepting his position. With clearly defined job specifications, there will be less on-the-job misunderstandings of what is to be done.

Fourth, for those institutions of higher learning which prepare remedial-reading instructors, continuous and systematic evaluation of their offerings should be a must. Such action will strengthen their professional contributions and can serve as guidelines for other institutions as well as for the public they serve.

By setting such sites, the status quo of the remedial-reading instructor will improve. No longer will it be a pressing concern to the reading world. It should not be. It would not be.

C. SECONDARY LEVEL

1. Preparing Readers for an Automated Society

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THE AGE OF AUTOMATION appears to loom over us or tantalize us with untold, often unimagined prospects. Is this age a lure or a threat? Will human beings be able to adjust to this "brave new world"? What should we be doing now in our teaching to ensure that today's children can enjoy the world of tomorrow, of which we know little but that it will be vastly different from today's.

Many groups in society are becoming concerned about these problems. At a recent conference of businessmen, industrialists, economists, and educators, the theme was "Education and the Productive Society." One of the frequently stated propositions was that formal education for all will be unending in a world in which machines will have taken over not only the routine work of the unskilled but also much of the work now regarded as skilled. For example, a May 1964, news release from the Pennsylvania State University indicated that computers were being used to aid in developing architectural designs:

> The computer draws the picture and shows the perspective, then the planner knows exactly where he is putting his materials. The computer actually has a picture of what the building looks like from all angles. The architect can examine the building in this manner and look at it from different views. It will not only visualize buildings, choose appropri-

> ate materials and project them both on a screen for study, but it will also add up the cost of the materials and building components as it progresses through the building product-selector process.[1]

It appears that there will be little left for the architect to work on but the aesthetic aspects of the design. Langfors, a Swedish aircraft designer, has put it another way: "the human designer . . . will work on improving system information . . . rather than solving the specific design problem being processed. Designers will design the designing system which designs the actual objects."[2]

What does this brief introduction to the world of tomorrow imply for today's teachers of reading? Three aspects appear to be important: technological literacy and flexibility, effective communication, and preparation for leisure; these will be examined both for their effect on programs and methods and materials of teaching reading.

Technological Literacy and Flexibility

Economists predict that during the working lifetime of today's children, each will change his type of work at least three to five times. We must, therefore, try to train children so that they become flexible.

The experience gained from retraining programs is not too hopeful, however. A U. S. government program was organized to train relatively unskilled people for the new world of work. By May 1964, of 107,000 who were approved for such training, only 17,000 actually finished the courses. It is important to recognize that notwithstanding the small group of graduates, this original group was the cream of the unskilled crop. They were by and large the better educated of those who were out of work, and they were neither the very young nor the very old in the work force.

While many factors accounted for this large attrition, a major one appears to have been their inability to benefit from instruction in new techniques due to their failure to read efficiently. I would suggest, therefore, that the period when functional literacy was essential has been superseded by one in which technological literacy is imperative. In terms of level, this range appears to be a minimum of grade VII reading but is rapidly moving upwards to grade IX reading competence.

Functional literacy included the developed ability to unlock unfamiliar words with ease. This differed from one linguistic system to another, but this definition also included the ability to comprehend material at a grade IV level. It is in the area of comprehension that greater demands will be made.

What are these comprehension skills which appear to be basic for mobility within automated society? The following list suggests some of these:

1. The ability to follow a *sequence* of directions;
2. The ability to *formulate* (not merely choose) the main idea;
3. The ability to recognize the *relevance* of details;
4. The ability to appreciate the *importance of the relationship* words, which put conditions upon the thoughts;
5. The ability to *interpret* a wide variety of diagrams, charts, graphs, and figures;
6. The ability to *realize discrepancies* in the presentation of ideas, particularly in the factual material; and
7. The ability to *recall* and *utilize* the information gained from reading in other situations.

These reading-comprehension skills which have been suggested by people who work in retraining programs do not, at first glance, appear to be too different from the normal goals of a normal program. Stress however, is placed upon the *functional* application of these skills, particularly on material which contains a high proportion of fact.

The secret of flexibility in an automated society appears to be in ensuring that all our students reach a level of development in comprehension which will enable them to apply these skills to a variety of content, but particularly to technical content. In today's world and tomorrow's, nothing is so perishable as a narrow skill. Through the security of his reading-comprehension ability, lies the possibility for today's student to adapt himself to the changing context of tomorrow's opportunities.

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[1] Quoted in P.B. *Education and Productive Society* edited by H. Ziel, Gage, Toronto, 1965.

[2] B. Langfors "Automated Design," *International Science and Technology* Feb. 1964, 90-97.

Effective Communication

If machines are to serve man and permit him to perform the humane functions of a human being, competency in the performance of technical-reading skills is also not enough. It is the ability to use language for purposes of complex communication which separates men from animals. So it now appears essential to ensure that the reading-skills development is complemented by development in other aspects of language, listening, speaking, and writing.

Too frequently in our schools we still tend to divorce reading from the other aspects of language. It has been suggested that the age of print has evolved into the age of multi-media, and that we are now on the verge of a culture which will be primarily oral. This supposition is not to deny that there will be no place for reading matter in future generations but rather that reading will be the main reinforcing element in a world where speech will have primacy.

In teaching reading, our faith in objectivity has tended to blind us to the value of the reader's forming his own ideas of what has been read. Discussion of these ideas must take place; nor, in spite of some of its advantages, can programed reading and teaching machines take the place of the vital dialogue between teacher and students. Teaching machines are never wrong, and thus they can never teach wisdom. The student cannot argue with them or tell them they are ambiguous or confusing. As a result, the student loses the wonderful opportunity to grow as a person by working with the teacher as together they search for understanding.

It is only through such interchange that the majority of students will be led to understand the full implications of what they read. Too often the teaching of comprehension does not progress beyond literal understanding. Unhappily, far too many adults have never achieved the social understanding or the ethical and moral integrity needed to interpret the front page of the newspaper.

Frequent opportunities must be provided for students to "talk out" and "write out" their ideas. It is true this takes time; but as our schools themselves become more automated, teachers will be freed from routine tasks and should, therefore, concentrate on this type of activity which technology will never replace.

To ensure that such teaching is effective, teachers need to ask questions designed to check the accuracy of information gained from the printed page. In addition, such accuracy questions *must* be interspersed with questions to which there are no right or wrong answers, though there may be better answers. The answers may be better or worse, depending upon a legitimate, differing interpretation. Students must learn to question both themselves and the author as they read.

Read, discuss, write is a sequence of activities which will lead not only to more discriminating readers but also to adults who can communicate more effectively through whatever avenue of language they need to use.

Education for Leisure

Coincident with increased automation, increased leisure time is usually forecast. It appears paradoxical then that when this is evident, we are currently in an educational period which is emphasizing "education for work," and there is pressure to eliminate the "frills in education." It may be that neglect of these so-called "frills" will be viewed as the most serious deprivation in years to come.

It will be a major challenge to teach people how to use their leisure time effectively so that it has a meaningful relation to their work tasks. They should not seek work compulsively as a way to avoid the discomforts of free time, for there are discomforts in leisure if one is not educated to use it. Many people become anxious when they are not doing anything. It is not every family that can stand the man around the house all the time.

Teaching the creative and fulfilling needs of leisure requires a life style and a state of mind which must be engendered early in life, rather than when people suddenly and anxiously find they have too much free time from their jobs and they do not know what to do with it.

In spite of all the competing attractions of television, reading continues to be one of the main leisure activities. There is ample witness to this fact in the expansion of library facilities throughout the continent. Yet, the home environments of many children are not conducive to encouraging reading. Thus opportunity for leisure and pleasure reading must be provided within the school program. Nor is it sufficient to provide a period on the timetable labelled "library" and merely allow the student to read what he likes. The program of reading for pleasure should be as well organized and prepared as the rest of the program.

Teachers and librarians should work together as the "reading counselors" of students. Such counseling should encourage both variety and depth of interest and should foster catholic as well as specific tastes. It is not the purpose of this paper to detail the main ways in which this task can be done; many professional texts contain sound suggestions.

One additional point needs to be made, however; the program should *not* be confined to encouraging only fictional reading. It appears likely that there will be more opportunity for "do-it-yourself" activities in the automated society. More people will want to learn to play a musical instrument, to paint pictures, or do more maintenance jobs about the house. There are a very great number of books already catering to the market for such books and this market is likely to increase. Too often, library-reference skills are taught exclusively to extend academic knowledge. We should not neglect the importance of relating such skills to social and leisure information.

Conclusion

The quality of our reading programs will be judged in the next generation not only by how well the population can read but by whether it uses reading effectively to safeguard human communication and satisfy a variety of leisure activities. In education, the need to keep a balance between developing marketable skills and developing general knowledge which will enable students to make competent decisions on their own in later life has never been more evident. This condition inevitably demands the re-education and continuing education of teachers themselves. If we are not "to exhaust ourselves by running in order to remain in the same place," we must begin planning now to ensure that our reading programs will prepare today's children for tomorrow's world of work and leisure.

2. Reducing the Number of Dropouts

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SIX MONTHS AGO A 25-year-old gentleman by the name of Carl stopped in my office and said, "I dropped out of school in the eighth grade. The world is passing me by. I can't read a newspaper or a magazine. I find it impossible to read street signs in an unfamiliar city. I need to learn to read so I can get a job and hold it. Will you help me?" He made a further statement which has stuck with me. "My teachers always seemed most happy when I was willing to sit quietly in the back of the room."

Shortly after Carl and I talked, the elementary supervisor from his school system paid me a visit. The conversation got around to Carl. The supervisor was deeply concerned about students like Carl, and he felt something in the school life of all the Carls in his district must be altered.

In a sense, this concern over the high school dropout has become extremely widespread. Concern about unsuccessful students is most likely to occur in the magnitude we have seen it in recent years within an educational system based on the value structure of the free society. It has occurred because education in this country is based on a psychology which values the uniqueness of the individual and a philosophy which recognizes the importance of education for all members of the society. It has also occurred because educators become concerned when the schools in which they serve fail with significantly large segments of their population. In contrast, in a recent article entitled "Dropouts in Russia," Bryce Zender describes a school structure in which "the school remained emotionally indifferent to his (the dropout's) fate" *(1)*. To paraphrase Robert Frost—and that makes all the difference.

From the recent flood of editorials, magazine articles, and books on the subject, as well as the implementation of federal legislation and newly developed local programs for the educationally and socially disadvantaged, one thing is quite evident: we are no longer indifferent to the fate of the dropout. Our theoretical concern for the importance of each individual and his education is nowhere more vividly gaining expression than in programs directly and indirectly developed to salvage dropouts.

If we have a fault at this time, it is that we lack the dynamic educational structuring necessary to implement longitudinal programs that get at the heart of the matter. Rather, we tend to identify characteristics and treat symptoms. This type of treatment may be interpreted in at least two ways: either we are still searching for a panacea, or we are attempting to alter a complex situation too quickly. Both of these alternatives are rather typical of early educational reaction to problems in the past.

Educational research invariably brings us to a point where we must change our *modus operandi*, and yet we never seem to realize that widespread patterns which need to be altered radically must be dealt with in a dynamic manner and that complex problems defy simple, immediate solutions. The dropout problem is both widespread and radical in its demands, and its very nature is complex. In addition, it is a problem that begins to appear early and one which compounds itself over the educational life of the student. Therefore, it must be dealt with from its inception rather than merely at its culmination.

Characteristics of the Dropout

Research has established, as did teacher opinion before the research, that potential dropouts have distinct general characteristics. These characteristics appear early in the life of the child—many, before the dropout's first school enrollment; most, before the end of the primary grades. The dropout, while being as intelligent as his competing counterpart, is generally found to come from a family with lower socio-economic status. He generally has had irregular school attendance and high family mobility. He began school at an early age; his home was usually marred with instability, he generally had a large number of siblings; he experienced a lack of academic success; and he has more often been a boy than a girl.

Other research has pointed out that reading disability is an extremely important factor in students who drop out of school, and this disability shows up early in elementary school. In addition, reading disability oftentimes changes the pattern of the other factors previously mentioned; *i.e.*, a poor reader may drop out in spite of a lack of other detrimental characteristics.

The question might be asked, "What value is there in being able to identify a potential dropout early in the elementary school?" This question is one with which more educators must begin to deal. The bulk of all the programs which we have conducted in order to change school-holding power has taken place at the junior-high or secondary-school level. The simple reply to the question might well be, "We identify these characteristics early so that we can begin to change the educational reaction pattern much earlier." To have a lasting impact we must begin earlier—in the elementary school or perhaps even pre-school.

Dropout Characteristics and School Responsibility

It is obvious that schools have little direct control over socio-economic status, high family mobility, home stability, or number of siblings. Schools do, however, control to a great extent patterns of success, a student's marks, his curriculum, and a major portion of the goals and objectives which are formed for him. To a lesser degree, we influence his attitudes, his self-image, and his motivation to continue his education.

If schools are to alter the basic dropout pattern, they must directly manipulate the factors in the areas over which they have some control, while indirectly aiding other social institutions and families with other factors. Invariably, schools will have to attempt to offset many of the negative factors they cannot control by establishing positive factors in the areas in which they can have some effect.

Formulating Long-Range Programs

Schools must establish long-range programs rather than quickly formed panacean programs. Effective long-range programs must recognize the importance of certain necessary premises.

The long-range program must be preventative as well as corrective. That is, it must attempt to find a way out for potential dropouts through the adjustment of school curricula, while offering a road back to those who have already dropped out through the establishment of supplementary programs for retraining.

A long-range program must be formulated to combat the problem early. The program must recognize that students do not just one day drop out of school; this predictable conclusion has been in the making since the student's early school years or before. For this reason, adjustments in curriculum, adjustments in success patterns, and adjustments in school offerings must take place early.

A long-range program must reconstitute the goals and objectives of potential dropouts. To a degree, educators must decide what is essential for the student who finds school persistence a problem. Educators must be willing to put forth a basic core of subject matter which is felt to be essential for students who are potential dropouts. The locally developed goals and objectives must in some way relate to the requirements which are essential for successfully competing in the labor market.

The long-range program must be based on a more effective individual diagnosis of skills. Educators must do more than pay lip service to meeting the educational needs of all students. This point means, among other things, they must know where a student presently is in the skills he needs to master. Since academic success depends to a great extent upon reading, mastery of reading skills should be accomplished prior to instruction that requires these reading skills. That is, we must search early for students who are not successfully learning to read, and we must change their curriculum orientation to a program that either allows them to get intensive and successful reading instruction before they are asked to use these skills in other education ventures or we must take them through a curriculum that does not require these reading skills. This kind of a decision is one which must be made by educators and which should be based on individual diagnosis.

The long-range program developed should involve all educational personnel. Each school might set up a planning commission for developing holding power in their school community. Such a commission might be composed of elementary and secondary guidance counselors, classroom teachers, vocational and administrative personnel, and curriculum specialists. The primary function of this commission would be to design a curriculum directed at students who have dropped out of school but wish to return, and also at the early identified potential dropouts.

A long-range program must be based on a shared knowledge of social factors and conditions. There is research to indicate that not only do educators and parents not realize how difficult it is for dropouts to obtain and hold employment but also that dropouts themselves do not realize how complex and difficult it is until they have gotten into the job market. Labor reports show that the difficulty in the world of work will persist and become more difficult in the next few years because of continued mechanization and automation. Parents, educators, and students must become aware of the difficult situation in which the dropout finds himself.

The long-range program must provide flexibility within the educational setting. Educators must become more and more used to allowing each student to flexibly elect programs which will be of value to him. This plan might include programs in industrial training (perhaps at the elementary-school level), home economics and job-counseling courses offered at a much earlier time, or functionally taught language-arts courses including all of the communicative skills which are felt to be essential to the student who expects to terminate his education at the end of high school or before. Many courses might be offered to some students as a regular text-book-centered course and to others who cannot read well enough to assimilate the material as a programed course utilizing tape-recorded materials.

Each long-range program that is established should contain a basis for its careful evaluation. Evaluation of the program should include a method for studying the long-range holding power of the school as well as a way of analyzing the attitudes of the student body and their abilities to be assimilated into the job market.

Initiation and Leadership for the Program

Whenever a school or community member is dissatisfied with the educational misfortune of one student or a group of students, a program to increase holding power may well be in order. Concern for others is an essential key for those who must initiate programs. Those who are most concerned should attempt to initiate and help to lead. Hopefully this initiation and leadership will come from school people, for their job is closest to the solution of the problem. This closeness also enhances their ability to recognize the need for a program and their desire to see a solution developed. Leadership may come from a guidance counselor or a classroom teacher. It may come from a principal, superintendent, or vocational-education director. Many programs have gained impetus from groups of interested parents, from legislative provisions of the federal government, or from the action of local service agencies. Needless to say, all programs which have been successful, or are being successful, have involved the close cooperation of both school and other community personnel.

Just as Carl had a reading problem, he also had problems of another sort—that of a boss who expected more than he could produce, or the "almost boss" who didn't hire him because he had no high school diploma, or the teacher who had no means of stimulating or redirecting his desire to learn. Complacency must be replaced by concern at every level. Ideas and initiative will then have the necessary impact to successfully reduce the magnitude of today's dropout problem. We can never hope to alter the problem as long as any Carl can say, "My teachers always seemed most happy when I was willing to sit quietly in the back of the room."

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D. COLLEGE TEACHER EDUCATION LEVEL

1. Making Reading Methods Courses Work: Laboratory Experiences

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DATELINE: TEXAS, JANUARY 1966. Wanted immediately 900 experienced and efficient reading teachers for grades one through twelve."—If this number were projected for the nation, the emerging figure would be staggering, not only because of number but also because of the high quality of teachers needed. Many of these teaching positions have been created to help the disadvantaged child who has experienced failure in reading. Such a position is recognized as a top-level challenge even for the best trained specialist in the field. To paraphrase the late Sir Winston Churchill—never has so much been needed by so many, so fast.

The opportunity to prove that reading teachers can be effectively trained is at hand. Austin *(2)* says that a teacher's success depends on the preparation received before entering the profession. Let us consider pre-service training—its methods, its adequacy, and its correlation with ultimate teaching effectiveness, remembering that it is the school classroom that is the performance arena of instructional evaluation.

I. Present Status of Reading Instruction Courses

In beginning our scrutiny we find that there is some concern about the present product of our training. According to Karlin *(10)*, ". . . teacher-training institutions are sending out into the classrooms men and women who are not fully-prepared to teach reading." To correct this situation Austin *(2)* suggests that instructors must upgrade their present preparatory-teaching programs. Perhaps a critical review of content, organization, and presentation of reading courses would be helpful. There appears to be wide agreement on basic skills, principles, and concepts to be included in these courses. However, there is serious lack of research on the best methods to efficiently accomplish these important learnings. Strang thoughtfully reminds us that "the way a thing is learned helps to determine how it is used or applied" *(8)*. It seems logical that we should explore those procedures which now appear to be promising.

Foremost among such practices are the demonstration and laboratory techniques. Betts *(3)*, Durrell *(13)*, and others have recommended the laboratory as perhaps the most effective approach in the training process. It is a multi-sensory learning experience which provides an opportunity for the student to feel, see, hear, and participate in an emotionally charged setting. It brings the student face to face with real, wiggly, sharp, and not-so-sharp pupils; and it tends to motivate him to put forth his best effort. Many things related to reading instruction take place simultaneously in a laboratory situation. As Carlson states, it allows a student to grow "in the ability to recognize decision-points, to define productive purposes, to be aware of alternatives, and to develop inventiveness in methodology" *(14)*.

The value of the laboratory approach appears to be well established, but the implementation of the idea on many campuses, especially the smaller ones, is yet to be realized. This fact is true because of the very real problems which confront the well-meaning theorist. Some of these problems include campus housing, supervisory staff, transportation, materials, schedules, and relationships with school personnel and parents. The problems, however, are not insurmountable. Let us consider how we may attack them with some degree of success even within the present framework of the college setting.

II. Semi-Laboratory Experiences

Such limitations as inadequate space, time, materials, and staff, complicated by increased class size may make the semi-laboratory approach attractive to college instructors of reading. The term semi-laboratory, as used here, refers to experiences taken from real teacher-pupil reading-instructional situations and brought into the classroom for analysis. Although such an approach lacks the presence of the live, bouncing, enthusiastic children, it has certain real benefits to offer during the first stage of students' concept formations.

Tape Recorder

One type of semi-laboratory experience may be brought about through use of the tape recorder, an economical way to bring children to a campus class. Taped basal-reading lessons can show such elements as sequential development of a lesson and variation in procedure such as in word study, setting of purposes, critical reading, and evaluative techniques of pupil progress. The use of the tape recorder requires that the student have a copy of the story in his hands at the time of the audition of the tape. This technique is real enough to promote the student's involvement in the activity.

Recordings of parent-teacher interviews and teacher-pupil interviews can prove to be an introduction to possible ways of carrying out this information-gathering and information-sharing skill. Tapes may be made of selected case conferences. Strang *(1, 5)* suggests that important learnings may come from a case conference; such as, ". . . increased appreciation of the complexity of a variety of reading problems; importance of the relationship between worker and client; . . . experience in interpreting and synthesizing information, and suggesting appropriate hypotheses; and a repertory of techniques and materials on which one can draw."

Films, Television, Filmstrips, and Slides

Films and television can also be means of bringing pupils into the classroom. Such films as *One Small Miracle*, produced by Dallas Public Schools, can stimulate students to want to teach effectively. This film portrays examples of the instructional tasks of a first-grade teacher and the reading progress of a group of children.

Filmstrips and slides are good ways to share ideas for teacher-made learning aids. An accumulation of bulletin-board ideas and learning aids can be collected.

Role-playing

Role-playing is another means of involving students in such tasks as conducting a case conference including principal, classroom teacher, school nurse, former teachers, and parents. Such questions as grade placement and referral, and the many facets thereof, may be dramatized by use of the role-playing approach.

Demonstration

One technique which this writer has used with a measure of success, has been lesson demonstrations within the college classroom, using members of the class to role-play the appropriate age and grade level of children. Care was taken to precede this assignment with research and tapes of lectures by such persons as Bracken, Clymer, Sheldon, and Smith. In addition, the instructor previewed the course and introduced the concepts so important to a sound philosophy of reading instruction. Demonstrations chosen by students have included the following: a basal-reading lesson for any grade, one through seven; teaching reading through science, arithmetic, and social studies; teaching a lesson with emphasis on critical reading, on word-analysis skills, and on appreciation of literature; and the teaching of reference skills, dictionary skills, and organizational skills.

It was felt that this particular activity strengthens the participating student's learning in the following ways: to think through and write out a lesson plan; to examine textbooks, manuals, workbooks, and other related materials at the grade level of his choice; to purposefully group the class and to make plans not only for the instructional group but also for the reading activities to be done by independent workers; to prepare learning aids appropriate to the lesson; to arrange exhibits and bulletin boards so that the room teaches; and to develop a student's poise of manner and voice while standing before adults.

Students learn much by executing this extensive assignment, but they also learn from one another the principles and values of cooperative teamwork. In a class of fifty or more students small groups of like interest may be formed to do a single demonstration.

Evaluation of this activity by many classes of students at Midwestern University has been generally positive. Some of the statements written by students in a recent class are included here.

Craig: "The demonstrations get over the practical aspects of the reading program. What do I do? How? These questions are answered in the demonstrations. It proved to me that planning, even though detailed, can be accomplished quickly and efficiently. It gives the student teacher a chance to stand on his own two feet and demonstrate his ability, handle himself and the materials."

Sharon: "The demonstration helped me because I had to dig into the children's materials to find out what was to be taught and to gather suggestions for doing it. This gave me insight into how a teacher has to prepare to teach each day and how only a few things can be emphasized at one time!"

Barbara: "The demonstration assignment is essential—never drop it from the course! Its value is not restricted to teaching reading. It is the first practice we have in any kind of teaching. Through it we see that we don't just get up in front of the class with a book and take off!"

The semi-laboratory experiences can do much toward converting a college campus class into a real teaching situation. They have the advantage of providing a protective setting for the neophyte while he is learning some of the basic principles of reading instruction, and they contribute to his imagery of actual learning activities. Semi-laboratory experiences are economical, convenient, and adaptable training procedures for building the student's sensitivity to needs, for intellectual acceptance of the reasons for action, and for verbal commitment to acceptable teaching plans.

III. Reading Laboratories

A more direct and at the same time a more elaborate approach to teacher training is that of actual laboratory experiences. A primary advocate of this concept is Durrell *(12)* who states, "The first fatal weakness of professional education is a preoccupation with verbalism. . . ." He is convinced that the highly complex abilities needed for teaching reading cannot be imparted through lectures and discussions in college classrooms. A modification of this position is reflected in a study by Robeck *(18)* which showed significant advantage of introducing laboratory practice concurrently with theory in the teaching of remedial reading. Other writers have emphasized the need for guided laboratory experiences.

Observation in Schools

One type of laboratory experience is observation of reading instruction in a regular school classroom. Such observation provides an awareness of normal pupil progress from one level to another, and this concept can be significant to a beginning teacher in setting realistic goals. Also, the opportunity to see different teachers use different techniques tends to prevent the copying or mimicking of a critic teacher during the period of student teaching—a provision ideally intended to allow time for thinking through, planning, experimenting, and perfecting some of one's own skills.

Tutoring

Tutoring is another much-used form of providing for pre-service involvement. It can be done on a college campus or in a school and can be scheduled during the day or after three in the afternoon. Tutoring is a one-child-per-student-teacher relationship. To be successful it should include some structuring of the activities and materials, guidance, and evaluation of both pupil and student-teacher progress. The opportunity to know one child well, to plan in terms of his reading needs, and to watch learning take place is an experience which can build self-confidence and teaching skill in a student. The involvement with the pupil and the learning process has an emotional impact on a student teacher that is not easily forgotten. It tends to make him dissatisfied with uniform classroom instruction.

Workshop

Another laboratory experience, the workshop, can be quite practical, especially for a graduate college course, provided it is directed by an experienced and successful reading instructor. Carroll has called it "the 'show and tell' of the teacher-training world" *(15)*. Participants observe classes, see demonstrations, and teach children under the supervision of the director. The values of the workshop as a laboratory approach to train teachers efficiently and quickly is probably undisputed. Kottmeyer recommends the technique ". . . as a means of synchronizing theory and practice" *(11)*.

Clinic

Fortunate, indeed, is the university that has a reading clinic or a reading center located on the campus. The opportunities for daily work by students and professor, comprising a team approach in the diagnosis and correction of pupil-reading difficulties, can provide rich experiences for all participants. IRA's minimum standards for professional training of reading specialists require clinical experiences done under supervision *(9)*.

Modified Clinic-Workshop

One college instructor, encouraged by reports of summer-reading programs in cities like New York *(6)* and aware of the intense need for laboratory experiences for graduate students, initiated plans for "a modified clinic-workshop" to be provided on the Midwestern University campus for six weeks during the summer of 1965. The administrators of the public schools of Wichita Falls, Texas, aware of the possible value of a summer-reading program for children, enthusiastically cooperated with university personnel. One elementary school provided the names of pupils and their school records, together with a loan of textbooks, library books, teaching aids, and equipment. The school principal and four of his teachers assisted and observed during the six-week period. Records were kept, and one graduate student of the class described the experiment in a formal report *(22)*. A summary of the report of this laboratory experience follows.

Objectives

The modified clinic-workshop attempted to fulfill certain specific objectives: First, to establish a laboratory setting suitable for providing reading instruction on a university campus; second, to organize a program of learning experiences for graduate students working in an advanced course in reading instruction; third, to secure children who could profit from reading experiences in a laboratory situation, to diagnose their problems, to plan and carry out individual instruction in the light of the diagnostic evidence, and to send reports back to the public school; and finally, to experiment with various techniques of diagnosing and instructing in reading, using the individual and the small-group approach.

Organization and Instruction

The children were selected for instruction in the laboratory setting because their academic potential was considered greater than their reading achievement. Scores on the Wechsler Intelligence Scale, Metropolitan Achievement Test, and cumulative records of the children were made available by the school, together with teaching supplies and materials needed. Several campus classrooms were used for the instructional area by screening off sections of rooms.

The first meeting included the children and at least one parent of each child. The goals for the six-week period were discussed with the parents, and the time for instruction was set at one hour and twenty minutes per day.

Tests administered during the training included Botel Reading Inventory, Harris Tests of Lateral Dominance, and Frostig Test of Visual Perception. A clinical psychologist administered the Bender Visual Motor Gestalt Test and the Illinois Test of Psycholinguistic Abilities.

Maintaining an atmosphere conducive to learning for a child with reading problems was a real challenge to the graduate students. Pleasant experiences with reading were considered of prime importance. Each child chose a project so that he could "read to find out" in his special field of interest. Besides the group conference, two individual parent conferences were scheduled.

A folder for each child was prepared, containing anecdotal records of teacher observations, test scores, samples of daily work, and summaries of the parent-teacher conferences. These folders were sent to the school for use by regular teachers in the fall.

Findings

The findings emphasized the practical value to the graduate students of the laboratory experiences. First, the graduate students gained in knowledge from having to apply research literature to a practical-teaching situation. Second, the graduate students became aware of the complexity of reading problems. Third, administering and interpreting tests were beneficial. Finally, the need for referral services and their local availability became apparent to the students.

The children also profited from the day-to-day organized instruction. Their greatest gain was evidenced by their change in attitude toward reading and toward themselves; however, many of their reading skills were likewise improved.

The laboratory experience described above could be provided by almost any size university and public school if personnel were cooperative. There was no outlay of funds and no elaborate setting was provided. There was, however, a great deal of pre-planning and work during the course. The physical arrangement might have been more convenient for the graduate student-teachers and the professor, but it did not detract from the childrens' instruction and learning. The personnel involved agreed that it was an experience worth repeating.

IV. Observations and Reflections

A careful study of the literature, supplemented by the writer's personal experiences, seems to indicate that the following generalizations are warranted:

1. The immediate need for well-trained teachers of reading is acute, apparently exceeding supply.

2. Reading specialists tend to believe that improvement should and can be made in the pre-service training of reading teachers.

3. Semi-laboratory activities show superiority over the traditional-lecture method of course presentation. Such activities can be successfully carried on within the limitations of the campus setting.

4. Actual laboratory experience should be an integral part of teacher training.

5. A student's performance in a teaching situation is perhaps the most effective evaluation of his knowledge of reading instruction.

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SESSIONS

A. TEACHER EDUCATION

A1. PRESERVICE

1. What is an Effective Methods Course in Reading?

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IN ONE SENSE, the query defining my topic can be answered with both ease and brevity: An effective preservice course is one that gives students the skills and understanding necessary to carry on adequate classroom instruction.

Perhaps some of you have already raised an eyebrow over my using the very modest adjective "adequate" to describe the quality of the anticipated instruction. Actually this choice was deliberate to highlight what is a basic assumption in my discussion of methods courses for prospective elementary-school teachers. The assumption, I think, is very realistic in asserting that a preservice course can never turn a college student into an expert teacher of reading. The many dimensions of expertness—for instance, perceptive diagnosis, smooth and flexible organization, appropriate pacing, perceptive questioning—cannot be fully achieved even with the most ideal of preservice instruction.

Such an assertion, I want to stress, is not designed to present excuses for the many existing courses in reading that offer students little more than sentimental clichés about children and vague generalizations about teaching. Instead, what I am trying to emphasize is that the professional education of the teacher begins only with the preservice methods course. Once he is assigned to a school, other means of professional education must be made available to insure that the basic help from the initial course is extended.

Differentiation between Preservice and In-Service Courses

When—not only with words but also in practice—the need for both preservice and in-service help is recognized, then it becomes essential that the special concerns of each level of help are clearly defined. For example, if we can assume that a teacher will have both a preservice and, later, an in-service course in reading, what topics ought to be covered in both? Are there aspects of reading instruction, for instance, which need to be dealt with in the first course and then repeated in the second with a new depth made possible by the teaching experience of the students?

On the other hand, however, are there certain topics which are of great importance to the neophyte but only of minor significance once he is teaching? Too, are there topics which need not be introduced until teaching experience has been acquired?

As teachers, you will readily recognize these as questions of priority and sequence, scope and depth. What you might wonder about, however, is why these kinds of questions have not been the focus of more systematic study among professional educators responsible for reading courses. One has only to scan reading-methods texts, or to survey topical outlines for the courses, to arrive at the conclusion that there is little evidence of agreement about what constitutes an effective "first" course in reading and what, on the other hand, is the special domain of a subsequent in-service course. It is probably accurate to say that the common tendency has been to try to cover everything in both courses and, as a result, to cover nothing very well in either. In the initial course, for instance, the specificity so badly needed by the new teacher is frequently absent; and, in the second course, the depth required to add insight and sensitive understanding to the practice of the experienced person is only rarely offered. Certainly the time is ripe for studied thought about the course to prepare a person to teach reading and, in turn, about the course that will allow for steady improvement among those already in the classroom.

The Preservice Course

As the name of this section points out, the chosen focus is the course that prepares for teaching. More specifically the question is "What is an effective methods course in reading at the preservice level?"

Underlying this question, you will notice, is the assumption that the college or university does offer a special course for reading. The assumption has been made because I cannot even begin to see how a course called "General Methods" or a course including all four of the language arts can ever hope to be successful in preparing students to teach reading. Even with a special course I find myself running all the way, during a semester, in order to cover essential content.

Problem of Involvement

When I first began to teach reading methods courses, I gave considerable thought to selecting content that would make a real difference after the students were graduated and were given the responsibility of teaching an elementary-school class. At the time I was not too many years removed from my own college experience in one of these courses; consequently, I still recalled quite vividly both the meager amount of practical help that came from its content and, later on, how completely overwhelmed I felt by the complexities of classroom teaching. In other words, I was thoroughly motivated to put together a methods course that would make a difference in the teaching of the students.

Armed with what I knew from my own teaching experience to be basically important topics, I fully expected the students to respond with interest and, at least intermittently, a little enthusiasm. What I found, instead, were young ladies and a few gentlemen who, from all appearances, could not possibly care less about matters like diagnosis, classroom organization, instructional materials, word-analysis skills, valuation, and the like. My frequent comments of "You will soon come to see how important this is" or "This is a common problem among beginning teachers" had little effect on stirring up either interest or involvement. In fact, as I made these comments, I felt very much like the parent who, as she takes candy away from her child or doles out a punishment, says "When you're grown up, you'll be glad I did this."

Earlier, as an elementary-school teacher, I had never learned to live comfortably with disinterested students. I subsequently learned, as a college professor, that lack of interest among adults is no less painful. What to do?

Tutoring Children

There is not space to describe the variety of procedures I tried, some of which have been kept while others were quickly discarded. Instead I will simply mention what has been especially productive in eliciting from college students not only interest and involvement but even good questions. This productive procedure has been the requirement of tutoring a child in reading during the semester the methods course is taken. The stipulation is made that the selected child is not to be one with severe reading problems; rather, he is to be a child who is having some difficulty and will profit from individual help.

At first I worried about what might happen in tutoring sessions conducted by students who had never taught and were still in the process of taking the methods course. But then I decided that while the children might not improve their ability to read, my students—if they were just willing to listen—would surely learn something valuable from the children. As things have worked out, my prediction was too pessimistic. Not only have the college students learned from the children but, in most instances, the children have been given interesting opportunities to become better readers. Here I must also add that life for the professor has become much easier, too.

To be sure, none of these comments about tutoring suggests that I have found the perfect way to prepare preservice students to carry on classroom instruction of the highest quality. What it takes to succeed in teaching one child is different from what is required to be equally successful in instructing those of a classroom. In the classroom there are the special problems of getting to know many children, of finding the right materials and assignments for all, and of organizing their time and yours in ways that allow for maximum learning. Taken individually, none of these is an easily solved problem. Together, they can be sufficiently formidable to lead new people right out of teaching. While no single preservice methods course ought to be expected to alleviate all of the problems facing a new teacher, the one course that is given should become much more useful than is now typically the case.

Availability of Films

When I engage in some wishful thinking about what could add to the usefulness of the preservice course, my thoughts go immediately in the direction of better films. Like classroom observations, a film can bring its viewers into the actual setting of instruction. Better than observing, however, a film could demonstrate—and this aspect is only one example of possible contributions—that the same goal in teaching can be achieved in many different ways. For instance, I think it would be extremely useful to have a series of films dealing with the collection of problems typically found among new teachers. More specifically, though, I would like these films to show—and these are only two illustrations—the great variety of ways in which a teacher can learn about the reading deficiencies of individual children or organize her classroom for the most effective instruction. I especially emphasize the need for films to show the variety of possible means when the end is the same because of the tendency among students and new teachers to be—as the children would say—"copy cats." At least it has been my experience to find that when preservice students are given the chance to witness classroom instruction, they then tend, for instance in their student teaching, to imitate rather than to adapt what they have seen other teachers do. Certainly it is of basic importance, even among beginners, to realize that effective classroom instruction is not a single pattern to be followed as if a recipe. I think films of the type I have been describing could perform a real service by giving the specific help that students need, even while they discourage the mimicking that specificity sometimes produces.

Preservice Course Not Enough

If space permitted, much more could still be said about ways to enhance the effectiveness of the reading methods course. For instance, I think it would be very profitable to discuss the typical reading methods textbook and, in particular, how its usefulness could be increased. But even in this limited article, it is still necessary to insert the reminder that new ways must be developed to insure closer communication and cooperation between the college or university and the elementary school. I mention this point in a discussion of methods courses to emphasize that their instructors could wear themselves out trying to make these courses maximally useful only to discover that their efforts lack meaning. And, in a sense, they do lack meaning whenever students find themselves employed in schools in which, for instance, only fourth-grade basal readers can be used in a fourth-grade class even though the range of reading abilities is very great.

This kind of final comment has not been made in an attempt to blame schools for the too frequent existence of inferior classroom teaching. Rather, the comment has been included to suggest that the preparation and the continuous progress of teachers must become the combined responsibility of persons in the college and in the elementary school. Otherwise, I do not think we can look forward to much basic improvement in the way reading is taught.

2. Safeguards in Student Teaching of Reading

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STUDENT teachers are influenced greatly by what they observe and do during their weeks of internship. A good course in the teaching of reading can be negated by poor experiences during student teaching.

Elementary-education majors over the country often spend as much as one college quarter in student-teaching experiences; and unless they are in special subject-matter fields, the teaching of developmental reading is a vital part of their work during the internship period. The quality of the observations and participation during this period is crucial in the development of good teachers of reading.

Persons concerned with directing the student-teaching phase of the undergraduate-teacher training program need to establish safeguards to maintain a high quality of experience for teachers-in-training. The purpose of this article is to present some guiding principles that may be considered in making the reading observation and participation worthwhile experiences in the teacher-preparation program. In the practical setting, to adhere to all the principles may be an impossibility. The college people and the supervising teachers, however, should follow as many of these principles as the situation will permit. Ideally, all of them should be considered.

1. **Student teachers should be placed in classrooms where good teaching of reading is being done.**

Elementary teachers-in-training should do student teaching in classrooms where they will observe good instruction in reading and be guided by knowledgeable supervising teachers. The internee watches very closely the practices used by the supervising teacher; and when the time comes for the student teacher to take over in teaching reading, his performance will be modeled largely on what the supervising teacher has been doing, regardless of how good or bad the previous preparation has been in reading methodology.

With the influx of elementary pupils and the expanding need for elementary teachers to fill existing classrooms, the task of finding enough outstanding supervising teachers has become almost impossible. College officials, however, should select the best possible reading teachers for the intern programs of their student teachers.

2. **Student teachers should know that the method or pattern followed by the supervising teacher is not the only one that may be used in effective reading instruction.**

The intern teacher observes and participates in a program of reading instruction that likely is characteristic in part of the system in which the school is located and in part of the supervising teacher who makes his own adaptations. One system may be characterized mainly as a basal-reader-oriented program; another system may emphasize individualized reading in the intermediate grades, and still another may have much of the language-experience approach in its beginning program. The student teacher will observe and participate in a variety of reading instructional activities, but these will revolve around one particular pattern that may be different from the one in which he will find himself after graduation. He needs to know of other approaches so that he will be prepared to fit into the systemwide pattern of his first place of employment.

3. **Student teachers need to observe more than one teacher of reading in order to see how different teachers approach reading instruction.**

No two teachers, even when their overall objectives and techniques are governed by similar philosophies and systemwide policies, will teach reading in the same manner. One teacher may be stronger than another in the development of critical-reading skills; another teacher may be more creative in his approach than the other teachers in the same school, and still another teacher may be especially capable in using basal-reader stories to lead children into wider reading. Student teachers need to see how different teachers aiming toward similar goals vary their approaches. They also need to see different patterns of organization in operation, such as grouping within the self-contained classroom, grouping across classrooms and or grade levels, individualizing the instructional program in reading, and use of multi-level materials within the same classroom. Sometimes, however, it may be difficult to schedule observations of all of the types because of availability of the particular patterns in the community in which the internship is taking place.

Related to the suggestion of different approaches being observed is the question of difficulty levels in observation. Student teachers interested in teaching in the primary grades, for example, would benefit from observations of reading instruction in first-, second-, third-, and intermediate-grade levels. Such observations lead to a broader concept of the total basic-reading program. There is also the possibility that the beginning teacher may find himself teaching at a grade level other than the one in which he interned.

4. **Student teachers, before the end of their internships, need to develop to the point that they feel secure enough to deviate from the pattern used by the supervising teacher.**

In the initial stages of student teaching of reading, the teacher-in-training will do well to model his instructional pattern on that of the supervising teacher whom he has observed working with the same children. However, before the end of his student-teaching period, he should develop enough confidence to deviate from the pattern of the supervising teacher when deviation appears to be warranted in the particular lesson he is teaching. Such innovations would of course be minor ones in most instances and would certainly need to be checked in advance with the supervisor if much change is involved.

The college instructor must encourage innovation and at the same time caution the teacher-in-training to take small enough steps to feel secure. The student must also be cautioned to avoid changes that may not be accepted by the supervising teacher. The reality of the situation demands that a good relationship be maintained by all concerned with student teaching, and an excellent way to cause discord is to try out ideas in a supervising teacher's classroom that are not acceptable to him.

5. **Student teachers should have a thorough course on the teaching of reading before they have student teaching.**

Sometimes student teachers in elementary programs are ill-prepared to attempt reading instruction because of lack of thorough academic preparation for the task. A solid course on reading methodology should be required *prior to* student teaching. The teacher-in-training who goes into the classroom with this background is in a good position to make the most of the teaching experiences. Without a thorough knowledge of the skills of reading and how they may be taught effectively, the novice teacher is so distressed about his own lack of knowledge that he spends his mental energy on concern for himself rather than concern for the learners.

6. **Student teachers should gain experience in teaching developmental reading before attempting remedial-reading instruction.**

Sometimes the student teacher is given an assignment immediately that involves teaching the poorest readers in the classroom. Such a practice is a poor one even though it does relieve the supervising teacher so that he may give more help to the other children in the classroom. Preferably, the student's first experience in actual teaching should not be with the children who are troubled in reading. These are the children who present the greatest challenge in terms of skill knowledge on the part of the teacher, and the student teacher can become discouraged because of resistance to the learning process that may have developed in these children because of repeated failure. The interning teacher needs for his own security to have fairly smooth progress in his first teaching experiences.

7. **Student teachers need to have experience under supervision in teaching good, average, and poor readers rather than experience at only one level.**

When the student teacher completes

his preparation program and enters his own classroom, he will be faced with the task of teaching children with varying degrees of competence in reading achievement. If his experience has been limited to the good readers or the poor readers, he will be slightly handicapped in working with those of other achievement levels.

8. Student teachers should prepare thoroughly before they attempt to teach a reading lesson.

The effectiveness of instruction often is directly proportionate to the amount of time spent in preparation. The idea that preparation is mandatory should be instilled in the minds of student teachers before they enter student teaching, and the supervising teacher and college supervisor should be quick to correct any situations in which student teachers fail to prepare before teaching reading. This method can be followed only in classrooms where the supervising teacher is well prepared for his own teaching. The advanced preparation should include becoming thoroughly familiar with the selection or selections to be taught as well as suggestions publishers offer to teachers for teaching the selections.

9. Student teachers in classrooms where basic-reading series are being used should be encouraged to deviate from the guidebooks when deviation seems appropriate.

The instructor of the college reading course and the supervising teacher should help the interning teacher to understand what guidebooks are and how they can be used most effectively. Too often the experienced teacher feels that to deviate from the guidebook is sinful. Some teachers, however, disregard the guidebook altogether. The student teacher needs to develop an attitude toward guidebooks that falls somewhere in between these two views. The guidebooks are very useful *guides* for sequence and coverage, but they should be used only as guides. In some instances they will give too little in the way of suggestions and sometimes, too much for a particular group. The student teacher must also know that the basal-reader and suggested skill-development program are not intended as a total-reading program, only as a core to a total-basal program. Recreational and content-area reading are also extremely important parts of the school's total-reading program.

10. Student teachers in classrooms where basic-reading series are being used should know that series of readers other than the one being used are available.

Within the classroom, the student teacher is likely to encounter only one basal series of readers, that which is being used in the classroom in which he is teaching. To make certain that the student preparing to teach becomes familiar with more than one series, the teacher of the college-reading-methodology courses must bring the student into contact with more than one series of basic readers. Emphasis should be placed upon similarities as well as differences in the available series.

11. Reading instruction carried out as a part of a course in the teaching of reading should be closely supervised.

Sometimes undergraduate methods courses require students to teach reading to one or more children during the quarter or semester. Under certain circumstances, this practice can add considerably to the course; but if it is poorly supervised, it has potential for harm to both the children and the novice teacher. Inexperienced teachers, for example, often err in the direction of attempting to teach children in materials that are on inappropriate reading levels. Whenever enrollees in undergraduate reading-methodology classes are asked to teach reading to children, the instructor should see that they are closely supervised.

12. College supervising teachers must know how to teach reading.

For college teachers who know little about the teaching of reading to judge the quality of a student teacher's performance in reading instruction is futile. The college teacher who has limited knowledge in the area of reading instruction should build up that knowledge or get out of the business of supervising the teaching of reading.

In summary.

Student teaching is an important phase of undergraduate-preparation programs for teachers, and colleges preparing teachers are obligated to plan the best possible experiences in student teaching of reading. Children deserve excellent reading instruction. Beginning teachers cannot give good instruction in reading unless they have experienced well-planned and supervised student teaching.

A2. IN-SERVICE

1. Introducing Linguistics in In-Service Courses

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WHEN A SPEAKER approaches a subject such as this one, he first tries to anticipate his audience—Who will they be? Obviously they are interested in in-service education, but most probably they are interested in *practical* matters—administrative organization, motivation, and evaluation. When "linguistics" appears in the subject, however, another set of questions arises.

Will they come to find out about linguistics? Will they be well informed? Or will they vary in their knowledge and attitude toward linguistics? Fowler's classic discussion of the split infinitive, in his *Dictionary of Modern English Usage*, divides the English-speaking world into five types (and these types may well describe the world's attitudes toward linguistics):

> (1) those who neither know nor care what a split infinitive is; (2) those who do not know, but care very much; (3) those who know and condemn; (4) those who know and approve; and (5) those who know and distinguish.

There are two parts of my report:

(1) The background, motivation, and chronology of our in-service program for secondary English teachers and for elementary language-arts teachers.

(2) The content of the course.

In this last section, I would like to relate the linguistics of the course to reading instruction.

In 1963-1964 nationally, leaders in English education faced a crisis. The facts reported in *The National Interest and the Continuing Education of Teachers of English* (NCTE, 1964) were startling:

- Only half of the secondary teachers surveyed in a NCTE study considered themselves well prepared to teach the English language.
- In his more than nine years of experience, the average secondary teacher of English had completed only 0.7 semester hours in language.
- As many as 32 per cent of the teachers surveyed reported not taking a college English course since certification or not taking one for 10 years.

We can, I think, assume that elementary teachers of English language arts were similarly lacking in recent college preparation in the English language.

In 1964, in Texas, we faced an adoption of language textbooks grades 9-12 at $737,000; an adoption of primary readers at $2 million; and an adoption of intermediate-grade readers at $736,000. We knew that modern-language content and method would permeate the high-school language books. Were Texas teachers prepared to consider changed content? We felt relatively certain that modern-language content and method would begin to influence basal readers. At the Cleveland NCTE convention, Ruth Strickland had reported activity among basal-reading publishers to make the basals "linguistically sound." In fact, the national scene in reading at that time was being stimulated by Bloomfield, Fries, and LeFevre; the convention halls buzzed with rumors that the new Scott, Foresman books would be linguistically respectable, that the Harper Row "linguistics" readers were being tested, that the Rojas readers for Miami Spanish-speaking youngsters were based on linguistics contrasts between Spanish and English.

So, as we approached these large adoptions of readers and language books we felt that the Texas Education Agency might stimulate the colleges and universities, the textbook makers, and the teachers themselves to consider the implications of linguistics in the total program, K-12.

With this motivation, we developed a short course for state-wide in-service education. There were four purposes:

1. to develop within teachers a philosophy of grammar adequate to meet the changing concepts of language;
2. to guide teachers in the use of the inductive approach in the teaching and learning of language;
3. to aid teachers in devising new techniques of exploring and teaching the language; and
4. to encourage teachers in further scientific study of the language.

Beginning in the fall of 1964, the Texas Education Agency sponsored the first classes in 20 study centers over the state. The course introduces secondary English teachers to linguistics. Topics include the nature of language, history, dialects, phonology, grammar, morphology, syntax, transformations and lexicography. The classes have been taught by teachers from schools and colleges trained in linguistics in college-level courses and institutes.

A number of hand-out exercises and two hundred transparencies are used in the instruction.

Rudolph C. Troike, linguist at the University of Texas, wrote the three-hundred-page syllabus for the instructors. The 100-page study guide for the participants summarizes the lessons and suggests reading assignments, activities, and applications. In the first year, about 1600 secondary English teachers were enrolled—with no expense except the cost of the five textbooks (about $10), and many of their schools paid for these.

In the second year, about 2000 English teachers were enrolled – with an enrollment fee of $12, half of which was reimbursed to their schools from NDEA funds. Books could be purchased with NDEA funds, 50-50.

Tom Fairclough, who worked in the Nebraska Project on the elementary school language curriculum and who is now at Midwestern University, Wichita Falls, Texas, has adapted the syllabus for use in the course for elementary language-arts teachers.

We will have fourteen classes for elementary-school teachers in the fall of 1966. To prepare for these classes, we are now writing a new study guide, preparing transparencies appropriate for elementary-school instruction, and planning a workshop for the in-service instructors. These instructors will be coming from the reservoir of knowledgeable teachers in schools and colleges who have taken college courses in linguistics and who have attended NDEA English Institutes. We will, of course, draw heavily upon the small but growing number of Texas-based linguists.

The first year was operated with state and local funds, before English and reading were added to the critical areas benefited by National Defense Education Act funds. The Texas Education Agency paid the instructors an honorarium and for necessary travel.. A local school acted as "host"—providing facilities and administrative service for the class. Both in the first and the second year of operation, we established only those classes where successful instruction was likely to result. The second-year course, supported by NDEA funds, followed administrative precedents established by mathematics, foreign language, and science in-service courses: classes met eight times for three hours on Saturday mornings. Class enrollments ranged from thirty to one hundred-fifteen teachers.

We have used several methods of evaluation. The TEA staff has visited classes in most of the centers. At the end of each course, participants filled out an unsigned questionnaire. Spot checks of summer institutes and college classes in linguistics have turned up what we believe is a significant number of area-study course participants. The course may have stimulated them to further study. Each instructor has given us reactions and suggestions during the course and at the close. An evaluation by one instructor will give a feeling for the problems and for the success which we may have had.

Some comments which were received follow:

On the schedule: "I felt that a tighter schedule, once a week perhaps, would have been better. Participants definitely would have preferred night sessions on weekdays to the Saturday morning sessions."

On the scope of the subject matter: "History of the language needs to be limited sharply. Probably the material on phonetics needs to be re-examined. Many participants mentally consigned this area (and our class activity) to the speech area then snapped to attention when we went into phonemics."

On the methods of instruction: "I would have liked the Trager-Smith films; there thus would have been greater variety in teacher figures. I used transparencies, 35 mm filmstrips, record, and tapes."

On the availability and appropriateness of materials: "I duplicated class activities (from my own classroom). Participants consistently 'came alive' when I presented this."

On the interest and attitudes of participants in the course: "The gamut. Most were genuinely interested. They appreciated the analyses of texts, though I was careful to avoid endorsement."

On cooperation and attitudes of participants in preparing for the class and in making applications: "Either teachers do not study (or I think they don't) or I lack the magic trick of demanding it of them. They responded to specific assignments but were constantly exhausted from football games, yearbooks, etc.— as far as general reading was concerned."

On administrative arrangements, state and local: "Good. I once was locked out of the building, and no chairs had been set up; but it was a purely accidental snafu, corrected in short order. My experience at every level has been fine."

Now let me move to the second part of my report: the content of the course.

Linguistics is more than a new theory of grammar, though the linguists have evolved several theories of grammar in the past few years. It is history of language; it is the history of English, dialectology, lexicography, morphology, and phonology. And it is more than a body of knowledge. It is a way or a method of studying the language – a scientific approach. In the in-service course we treat eleven topics. Three of these topics I would like to comment upon – the nature of language, the phonology, and the grammars of English. I will try to relate them to reading instruction.

Most teachers in the in-service course have heard of the concepts of language which linguistic study fosters. Some of them are

Language is like a code;
Each language is a different code;
We have a language machine;
Language is a system of signals;
Language is based on sound;
Language includes vocabulary;
Grammar is the organization of language; and

Language is a social phenomenon.

Our instructors try to convince the teachers of these concepts so that their instruction may directly and indirectly build these and other concepts for their pupils.

For example, a teacher who values the language or the dialect of another may say: "Maria is learning *two* languages. For her, English may be hard; but Spanish is easy. It's the other way around for me!"

A teacher who knows the organization of English may say: "What happens when we turn that sentence around; does it mean the same? Is the order of words in English important? Is this true in Spanish?" Knowing the primacy of speech, the teacher says, "The letters of the alphabet don't have sounds— they are symbols for sounds. The letter 'A' stands for sounds we make."

Aware of dialect variations, the teacher says, "Do you notice that "Massachusetts" is not spelled the way many of us pronounce it? As you spell it, remember there's that "choo" in the middle even though I don't pronounce it."

Recognizing the difference in usage between oral and written English, the teacher may say, "It's not incorrect to *say* 'like an ostrich does . . .' but we ought to *write* 'as an ostrich does . . .' or '*like* an ostrich.' English is like that! We have different ways of putting things when we speak and when we write. Let's watch for these differences in the stories we read. I'll help you find them."

Alert to standard and nonstandard usages in the community, the teacher may say, "*Ain't* is a *very* old word and it is in the dictionary, but many people prefer to say *isn't*. I say *isn't*— but that doesn't make *ain't* bad! I'd like for you to learn to say *isn't* in our classroom."

The in-service course is concerned with phonology, the science of speech sounds, their analysis, and classification. The linguists have contributed new theories and new terms to the field – and the field is certainly not static, not settled. However, the terms *phoneme* and *phonemics* seem to be established. Phonemics is the set of techniques to determine for a particular language those classes of sounds which signal differences in meaning; a phoneme is the basic unit in the sound-signaling system. So, the difference between *hoarse* or *horse* (Texas dialect) is a phonemic difference; the difference between *I scream* and *ice cream* is a phonemic difference. The difference between *pin* (as in *safety pin*) and *pen* (as in *ballpoint pen*) is not phonemic in my Texas dialect but a spelling graphemic difference. You can see that the reading teacher who understands phonology—even in a limited way—may be able to *validate* her *phonics* instruction. (Phonics is a set of procedures to develop the pupil's ability to "sound out a word," to *say* the printed symbols so that he can relate the word to his experience.)

Teachers are alerted in the in-service course, for example, to the fact that there's nothing "long" about a *long* vowel or "short" about a *short* vowel. In the primary grades, when we are building concepts of longness and shortness, we should be honest with pupils: these terms are conventional but meaningless handles for sounds made with the tongue in certain positions.

Teachers with a knowledge of phonology understand the decoding and encoding process of language; the importance of the *model*, live or electronic, in speech development; and the necessity of much oral language, especially for children whose oral-language development has been slowed by sociological or cultural factors.

A knowledge of phonology assists the teacher in working with non-English-speaking pupils, with bilinguals whose English can be improved, and with pupils whose English is nonstandard.

The lessons in phonology provide teachers with some understanding of the differences between speech and writing. The linguist cautions that beginning-reading materials should use the speech patterns and the conceptual experience of the child. In later years, the reading matter of the textbooks moves from "speech wrote down" to the *written* dialect — usually informal, sometimes formal, and different from speech. For example, from a fifth-grade supplementary reader* come these examples of written English: "Snorting, Shag charged." We would probably *say*, "Shag snorted and charged." Another example: "Blowing heavily, he sank to the ground to rest." We would probably *say*, "He blew heavily and sank to the ground to rest." These "prejunctural words or phrases in opening positions" appear in written English but not usually in spoken English. The reading teacher should be knowledgeable in differences between speech and writing, alerting pupils to patterns and structures which are not in their speech and providing writing practice—as well as reading practice—to add these patterns to their language repertoires.

Dialect study has been a popular aspect of the linguistics course, and teachers are using the unit on dialect which accompanies the TEA transparencies. In many Texas classrooms I have visited, students have been aware of the rich variety of dialects within earshot. When this variety was not present, the teacher brought in other dialects—"live" or recorded—to lead youngsters to being aware of the diversity and to value the diversity.

Elementary teachers have a major responsibility in developing "sentence sense" among pupils. Grammar concepts are a natural outgrowth of many classroom experiences with language in speech and reading. The teacher who has knowledge of several grammatical theories — traditional, structural, transformational — may have a sounder program, and misconceptions or half-truths in grammar will not need to be retaught later. The in-service course is concerned with grammar theory; for example, the concept of the sentence. Our books say that a sentence is a group of words making a complete thought. A practical *first* definition (and certainly one less abstract) is that a sentence begins with a capital letter and ends with a period, question mark, or an exclamation mark. And a way to learn this concept is by "experiencing" it many, many times in reading. But this one is the definition of a "written" sentence, a unit of prose. What are "oral" sentences or "spoken prose"? And what is "conversa-

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*Witty and Freeland. *Silver Web*. Boston: D. C. Heath, 1964, 137.

tion" structurally? Teachers need a firm grasp of the differences.

But the pupil's sentence sense must arrive at a second level: written sentences have two parts — subject and predicate. The course suggests that teachers work on this level inductively, building from the student's own language and sentences from his reading.

The "complete-thought" definition suggests little that is meaningful to most pupils. But by observing the behavior of words in sentences, they make generalizations about the sentence patterns which they already use; they learn to recognize and use patterns and expansions which they find in their reading. This learning in the elementary grades serves as a foundation for sophisticated language theory and for rhetoric in the secondary school.

The linguist has given us a *theory of the reading process*, and this theory should be known to teachers of reading. In the in-service course, Troike describes it:

> The reader goes from (1) the written form to (2) the speech form which the written form represents to (3) the meaning in the world of experience. In the development of silent reading, which comes after beginning instruction, the actual production of speech is suppressed, and a "short circuit" is developed from speech formation to linguistic decoding. (Words known only from their visual representations will be passed through the speech formation unaffected.)
>
> The reading process, then, can be thought of as a chain of several steps: visual symbol → decode → phoneme sequence → decode → morpheme reference → decode → (meaning referent).
>
> A sophisticated approach to the improvement of reading instruction begins with an understanding of the phonemic principle and the nature of writing.

The method of the linguist in studying language is induction. Just as the "new" mathematics concentrates on a "discovery" approach, so the teacher who has had modern language training will wish to use the scientific method for teaching the important ideas.

To the linguist the problem may be the analysis of a language or any part of it. The linguist collects data with a tape recorder or questionnaire and writes it down in phonetic notation. He analyzes and classifies his material. He makes an educated guess — an hypothesis — and tests it out. If it works, he can state a generalization, or law, or rule. If not, he collects more data and carries his analysis further. Language, therefore, can be studied scientifically.

One of the best illustrations of the scientific method in the classroom is grammar study, a process of self-discovery for the student, bringing his grammar (the grammar the native speaker of English brings with him to school) from the unconscious to the conscious level. One of the best sources of data for this self-discovery is the language—spoken and written—in the classroom. Textbooks, library books, encyclopedias, newspapers, magazines, and the student's speech and writing—all of these are resources for the study of grammar and usage. Intermediate-grade and junior-high-school youngsters who watch the commas in what they read in order to make wise generalizations will know their significance as signals in terms of stress and intonation placement. From reading, pupils will build families of words and understand the sentence slots for *differ, difference, different, differently*. They can be led to "word watching" and "structure watching" using reading material for data collection.

For the teacher or the pupil, the problem may be investigating a dialect item among persons in the speech community or a problem in intonation (stress, pitch, and juncture). (Does the speaker's voice go up on *all* questions? What's the normal order of adjectives in a sequence?)

The focus of your days in Dallas is *reading*, an exceedingly complex process, further complicated by linguistics. But the points of contact between reading and linguistics are many. Increasing our knowledge of the theory and our applications of the theory promises, I feel, a strengthening of reading instruction. Just as we reading teachers must go to the psychologist, the sociologist, the physician, and the reading theoretician, and researcher, we must go also to the linguist.

We must develop within the teaching profession those who can synthesize and interpret the findings of all these professionals. Then we must bring their synthesis and interpretation to the classroom teacher. In-service education in a state-wide program can begin the process.

If English is *skills* and *content* — the skills of listening, speaking, reading, and writing and the content of literature, language, and rhetoric (a practical definition) — a priority area for in-service should be *language*, for language is the stuff manipulated in the skills, the stuff made *art* in literature. Better reading programs, better reading materials, and better readers could result from this attention to language.

2. Facets of In-Service Education for Teachers of Content Subjects

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NOT SO VERY LONG AGO I visited a friend's home one evening when an amateur group of dedicated opera-lovers was practicing for its annual production. It was to be "Tosca" that year; and, after the spontaneous applause that followed the last lovely ringing tones of the soloist, the president of the group announced, "For our next practice, we have secured a dramatics director. He will tell you where to stand." For him, as well as for most of the singers, it was the music that mattered. That was drama enough. But, since the production was to be staged, obviously someone must tell them where to stand.

Not so very long ago, too, this attitude was typical of all too many teachers of the content subjects. The subject is the thing; someone else should teach them how to read it.

Realization of Need to Teach Reading

But rarely now does one hear such a statement as a high-school teacher made to me several years ago: "I have a bunch of poor readers. Why don't you come out and work with them for a few weeks, and then I'll teach them the same as the others?" Many changed and still changing circumstances have contributed to the reversal of what has been an all too common attitude to disclaim responsibility for teaching reading skills appropriate to each content subject and necessary at each new level of demand.

It is heartening to see, despite the "revolution" in the content fields which requires re-tooling and updating to keep pace, that amid this explosion of knowledge there seems to be a growing awareness of responsibility not merely to cover subject matter but to uncover it. The question from growing numbers is becoming not, "Why should I teach reading too?" but rather, "How can I?" And, as the Carnegie Reports and other studies have shown, these same teachers have had little or no pre-service training to help them.

Some Plus-Factors

In addition to a trend toward a changing attitude of acceptance of responsibility for teaching reading skills on the parts of teachers of content subjects, those of us who work toward reading improvement have some other things going for us. Many teachers in all subject fields have a richer background of training to tap. Many more have advanced degrees today than they did a decade ago, although specific reading training is unlikely to have been included in their courses. They are exposed to many more articles in the lay press; and even though these may be over-simplifications, or just "not so," they do cause reaction. Then, too, there are more opportunities for many aspects of in-service education. And, of course, there is more money available.

IRA Helps

For a long time and in various ways, the International Reading Association has helped to point direction to enriched in-service education. Just recently, the March edition of *The Reading Teacher* had "In-Service Reading Programs" as its theme. *Conducting In-Service Programs in Reading*, a new Reading Aids Series publication, is invaluable to anyone concerned with planning, carrying out, and evaluating an in-service program. Not only does it contain many practical, concrete guidelines for carrying on such programs for elementary teachers but there are limitless possibilities for a resourceful leader to adapt the suggestions for secondary programs as well.

Local councils of the IRA can, and often do, exert strong leadership in many aspects of in-service education in reading, as they seek by the quality and practicability of their programs to attract and involve all teachers, not merely those who are primarily reading teachers. The strong support of local school systems, particularly evident in our own metropolitan Detroit area and throughout the state where local councils exist, must certainly be duplicated throughout the country as the local councils grow and make their impacts felt.

Diversity of Informal In-Service Education

In-service education has broadened not only in the scope and diversity of the programs it offers but also in the concept of what in-service education means. It has truly moved in its aims from the typical university credit course, perhaps sponsored by a local school system, which, if available at all, was either a survey of the reading field or a "do it this way" kind of course. Even the designation, in-service *education* rather than in-service *training*, is indicative of the change in scope and purpose. *Education* implies understanding of and principles and reasons for what one does; *training* is usually construed at the "recipe" level of performance.

Some of the numerous aspects which in-service education takes are as effective with secondary teachers as with elementary if these means are carefully tailored for the purpose which they are intended to serve. Not all of them are new, but they can have a new outlook and new vigor. They can be and have been rejuvenated. Ranging in what is probably from least to greatest degree of direct, personal involvement, it is possible to cite a few instances among the many possibilities.

New Uses of Old Means

Timely, pointed, pithy professional bulletins, attractive in format, can be made to perform a lively in-service function. They may well provide a background or a take-off point for small group or departmental sharing. Such bulletins are especially effective if the examples used are drawn from basic or supplementary texts in current use or relate directly to actual units in specific courses.

Encouragement of professional reading can be an in-service goal. A school system which provides a professional library, as ours does, makes a rich contribution to in-service growth. If this resource is accessible to teachers, if it welcomes their suggestions for additions and keeps abreast of new publications, and if it publicizes recent acquisitions in annotated form and highlights pertinent articles from professional journals, then such a professional library provides a real stimulus not only to individual teachers but also to other forms of in-service education which are being carried on more formally.

Displays of new materials can also create a learning situation if there is time and opportunity given teachers to explore and discuss with consultants the function of such materials, their strengths and weaknesses in a specific program, and pertinent suggestions for their uses.

Tieing-in to the on-going work of established systemwide and departmental building committees and sub-committees can be a highly effective form of in-service education. Just recently it was most gratifying to be invited back to work with a group of junior-high teachers who have currently identified as their particular focus some ways of helping students in their block-time English-social studies classes become aware of reading for different purposes. This same inter-departmental group has previously worked cooperatively, as a result of a problem census, on vocabulary development, use of reader cues, organizational skills, and identification of structural patterns of writing. Similar groups, in other junior-high buildings, have felt the need for a variety of materials to individualize instruction in the areas of social studies and science, and in the cooperative search for multi-texts and varied supplemental aids they have learned more about meeting reading needs.

Time Needed

It is probably most pertinent to mention here that, for real in-service growth, time must be realistically provided. Not too much that is significant and lasting is accomplished at the tag end of a full school day. In the case of the ongoing work of the junior-high groups just cited, at least the task force of these groups has had, for several years, a deliberately scheduled common preparation period when the teachers can discuss common problems. Administratively it took some planning, but the results proved worth the effort. More importantly, a system-wide plan for curriculum-development time, K-12, when classes are dismissed, was inaugurated this year. Each month this plan provides one half-day for work on various aspects of curriculum improvement in addition to one early dismissal day. It is, of course, too soon to evaluate the returns from such an investment in time, but the beginnings are promising and the possibilities are exciting. Such a plan takes cognizance of what we have long known about the importance of time for important work and helps to close the gap between what we know and what to do.

Encouragement of Conference Attendance

Attendance at national, state, regional, and local conferences, encouraged and subsidized by school systems, often yields a good return for the investment, especially if opportunities for sharing the experiences and findings with colleagues are provided and expected. Locally sponsored conferences can often generate and sustain interest in reading improvement.

New Conference Format

Three years ago the Elementary Language Arts Committee in the Dearborn Schools held a dinner conference which, if teacher enthusiasm continues as it has thus far, is fast becoming a tradition. The conference begins with a coffee-time and registration right after school in a centrally-located junior-high building. Attendance is voluntary. The pre-dinner address features a theme which has been well publicized with a related bibliography. Advance information gives biographical background of the speaker, who has been in each instance a nationally respected authority in the field. Participants who wish to remain for the evening session are dinner guests of the school system. Following dinner, smaller groups meet to react to the presentation and raise questions which they may wish to ask of the speaker, who visits each sub-group for ten to fifteen minutes. Questions, comments, and concerns are recorded and turned in for follow-up by the system-wide committee and for discussion, where pertinent, at the individual buildings. Although instituted by an elementary committee, invitations extended to secondary teachers have been widely accepted each time.

Reading-Center Approach

Many of the ideal conditions for effective in-service education are to be found in the reading-center approach. As the Dearborn Reading Center operated, teachers came to the center five at a time for a six-week period. Substitutes were provided. Each teacher worked with two children each morning. In consultation with the director of the center, teachers did the diagnostic testing, planned, carried out, and continuously evaluated and adjusted each student's program. Elementary and junior-high teachers came to the center at different six-week periods. The latter selected two of their own pupils to benefit from the intensive-reading help. Pupils attended mornings only. The teachers' afternoons were spent in a workshop situation. Part of this time was used to exchange information, suggestions, and plans for the children with whom each worked. The remaining time was spent in preparing materials related to their subject area, not only for their own tutorials but also for the range of abilities which their testing had identified in their classes.

Skills Exercises in Content Subjects

The experience of becoming aware of the multiple and varied reading skills needed to read social studies material and the focus upon the separate skills in order to construct exercises for appropriate practice, with materials in actual daily use, created a satisfying learning situation for junior-high teachers especially. As the number of such skills exercises multiplied in various units, booklets were prepared and made available to all junior-high teachers who wished to use them. Reading-center teachers explained the use of the booklets to others in their department. It was emphasized that the intent was not to provide a workbook for literal adoption but to offer suggestions for adaptation. The booklets gave direction for reading-skills practice, pointing the way to do a better job of teaching the subject matter by helping students do a better job of reading in the subject. They also served as a guide to construct teacher-made tests to assure balance in inventorying pupils' reading abilities in the subject area.

Continuity of Programs Imperative

In-service education has indeed many facets, but if, as with the facets of a diamond, they are designed to give off brilliant light, they must be carefully cut for the purpose. Teachers must have a direct voice in the planning and must be assured that the work entailed will not only give them job satisfaction but will result in administrative support for their efforts as well. Support can be translated as time to do the job, provision for help in better ways to do it, materials to implement their classroom needs, and a right to expect that programs and practices generated out of enthusiasm will be nurtured by continuity of sustenance.

3. Improving Reading Instruction Through Teacher-Specialist Groups

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TEACHERS, administrators and specialists in every school system are becoming increasingly overwhelmed by the tremendous amounts of new educational materials which are being offered. Conscientiously, we believe we must be aware of most of these to perform our work professionally and effectively. To me, this abundance is the most frustrating development in this exciting new era of the Great Society and our role in bringing it to its highest educable potential.

Equally frustrated are classroom teachers who must understand the newer concepts in all subject-matter areas. Here, it is the responsibility of the specialist to assist teachers to extend their professional understanding; to bring to them new ideas, new techniques, and news of "tomorrow's materials;" to provide new approaches; and to help with the pupil who doesn't fit into the class-pattern of learning.

Who is the specialist? There are as many correct answers to this question as there are school systems. The definition of specialist rests upon an administration's recognition of the need for one or more highly trained professionals for specific areas.

An ideal situation prevails when a system has a specialist team composed of psychological consultant, social worker, speech and hearing therapist, registered nurse, guidance counselor, and reading consultant, all of whom work with the administration, the teachers, and the pupils. Too frequently the opposite prevails, and the specialist team is composed of the school nurse and a reading consultant. Notwithstanding, such a team may work efficiently (admitting certain professional limitations) with all who have need of it.

Regardless of strength and professional backgrounds, a variety of problems is placed with a team for solution. For this reason, extreme care must be exercised in the selection of specialists. They must bring to a group skills and understandings which are the products of years of graduate work and wide experience in their fields.

The reading specialist can be of unlimited assistance in a school system when she can both win the confidence of the classroom teacher and with him form a team. This team works in the following areas:

1. *Evaluating the classroom reading program*: The evaluation must be based upon the teacher's judgment of the measure of success her children are having in

reading and whether the program is broad enough to meet the needs of each pupil.

II. *Guiding all pupils toward greater achievement in the reading program by:*

A. Helping the new teacher improve her teaching methods and working with her closely and informally in frequent workshop situations;

B. Bringing to all teachers (in this same friendly, informal, workshop environment) teaching suggestions, new techniques, and improved materials which will be helpful in their classrooms;

C. Observing in the classroom and confirming teacher's identification of certain pupils, whose behavior is symptomatic of unusual learning difficulties and reading disabilities; and

D. Recommending supplementary reading materials to meet class needs.

III. *Suggesting revisions in the school system's reading program or recommending the development of a new reading program.* Such suggestions or recommendations must be weighted by teachers' response to the following questions:

A. What are your pupils like? Are they eager? Imaginative? Curious?

B. What kinds of reading materials will engage their interest and maintain it?

C. What sort of reading experiences will give them the understandings they need for success in living?

Robert Karlin of Queens College, stated recently: "Programs are not as important as the teachers who administer them" *(3)*. As an experienced reading specialist I must agree with Karlin wholeheartedly and add that those programs which are teacher-inspired continue to be the most successful insofar as pupil achievement is measured. Teachers are the significant variables in pupil progress!

IV. *Establishing a corrective-reading program within each school.* This program will complement daily reading in the classrooms. Its immediate goals are concerned with the strengthening of reading skills of retarded readers, including intensive phonetic training in the primary years.

The teacher-specialist team must work closely and cooperatively for a successful corrective-reading program. Although the reading consultant is responsible for its organization and development, every teacher has a personal stake in it, because:

A. Classroom teachers make original pupil referrals for inclusion in the corrective-reading program. Thereafter, diagnostic testing in reading usually confirms teacher judgment.

B. Teacher evaluation of pupils' reading difficulties is given high priority by the reading consultant, for these problems have been the subject of team discussion.

C. After admission to the corrective-reading program, the reading consultant requests periodic progress reports on pupils' reading in the classroom. Such progress reports reflect the team's awareness of a pupil's specific needs and the methods for overcoming successfully his weaknesses in the reading-skills patterns.

(I wish to add words of caution here. Avoid any attempt to correlate a pupil's intelligence with his reading ability. I am not aware of any statistical relationship between these variables insofar as reading results are concerned. Changes in a pupil's learning behavior, as observed in the teacher's evaluation, produce more accurate findings than the results of statistical studies.)

V. *Stimulating professional growth at all levels in reading instruction.* The exchange of professional information operates most successfully in a compatible relationship, preferably within the workshop structure. There are so many unique and exciting concepts and reading programs introduced each year that it is impossible for the reading consultant to master the methodology and the techniques of each innovation. However, it is one's obligation to acquire a general knowledge of new philosophies, unusual developments in reading materials and programs, and research findings affecting reading status. Further, it is a commitment of the reading specialist to bring these varieties of information to teachers, assess their especial interests, and supply additional detail should teachers desire to know more about specific new programs. When time permits and the school administration approves, consultants from the publishing field are ready and eager to visit the school and explain their newest materials.

I believe it is the responsibility of the reading consultant to convince teacher members of the team of the merit of attending as many worthwhile reading conferences and conventions as possible. True, most of these conferences steal from teachers' personal time. Nevertheless, such attendance provides an individual exposure to the excitement and enthusiasm about new trends, programs, practices, and aids for teaching reading. This atmosphere cannot be engendered by second-hand reporting (no matter how competent the reporter).

Again, there is this question of professional growth through graduate-level courses in reading. I believe it is "a must" for every teacher to return to the campus to recharge those professional batteries. Some states require that additional degrees or semester hours of college work be completed in reading *(4)*. Where there is no continuing certification stipulation, it behooves the specialist to present the newer developments in the language arts so provocatively that others will desire to take more college work and to seek new images in reading.

VI. *Encouraging frequent working conferences between the teacher-specialist team and administrators.* Such meetings are essential for an effective appraisal of the school's reading program and cooperative understanding of its strengths and weaknesses. There will be little support for new ideas, new texts and materials, or any suggestion for major change, unless the administration has been made a part of the team, ex officio, and is kept informed of the results of its workshop sessions. As a reading consultant, I would rather "have a friend" in the principal's chair who is actively involved in the reading program than one "at Chase Manhattan."

Taking a Second Look

At the beginning of the school year when it is my privilege to meet with teachers who are new, as their reading consultant I urge them to take a second look at the children in their classrooms. Admittedly, the first go-around has revealed all the general, expected characteristics. With this second look, they must ask themselves these questions:

I. What do these children desire of me?
II. How can I teach them to believe in me?
III. Have I the magic formula to hold their interests?
IV. Shall I be capable of giving to them the varieties of learning experiences which will yield patterns of success?

Such questions induce a tremendous awareness of the job ahead. The teacher who is well trained and believes in her ability to meet the pupils' *needs* begins her year by planning a creative, developmental reading program, designed to produce positive *answers*. Further, her membership in the teacher-specialist team will bring her continuing support and valuable assistance throughout the year.

In that second look, new teachers recognize some children whom they term "slow learners." For too long a time have pupils been lumped into this category, eventually becoming stereotyped and subtly down-graded by the group and the school. With the interest of our society now focussed upon these children, means have been provided for more assistance to the teacher in helping them to learn, in teaching them to read, and in guiding them toward the creation of and respect for a self image.

In such a climate the specialist works intensively with teacher and children — all toward a break-through to learning and success in reading. When the school system has an extensive specialist team, various tests for determining possible pupil handicaps to learning are completed rapidly. In addition, psychological testing is administered. Family history and background, which may influence deviation in the classroom from the expected behavioral pattern, are made available. Reading difficulties are charted by formal and informal diagnoses.

With team consideration and evaluation of these collected data, we can expect a resultant, comprehensive analysis of the "slow learner's" difficulties as well as suggestions for the teacher. Perhaps, more *personalized teaching* will be recommended. Of this aim Dr. Mary Austin writes:

> Because reading opens the door to a productive life in our society, the ultimate aim of the team is to achieve competency in reading on the part of every pupil for whom this is appropriate. It is the teacher, however, who can provide the key to the door. It is the teacher who works intimately with boys and girls. She must be willing to start where they are, to accept them on their own merits and abilities, and to tailor instruction according to their needs, interests, and capacities. She must be a pioneer on occasion, willing to initiate new procedures as they appear to hold promise *(1)*.

Finally, I want to touch upon a kind of special team instruction about which I am deeply concerned. Programs for the culturally disadvantaged are burgeoning under the NDEA titles. The majority are honest, well planned, and inspiring. Nonetheless, I am fearful when I come upon a newspaper story headed "Prepsters 'Find Gold' in Tutoring the Disadvantaged'"; or an announcement stating that there are openings for people (nonprofessional) to teach the adult high-school dropouts *(2)*.

Without detracting from the motivation which prompts the prep-school student and the unemployed college graduate to offer their services in this cause, I wonder what they can bring to such teaching, so unique and so highly specialized in its professional aspects. I wonder, too, about the results. These volunteers will be dealing in the complex intricacies of human behavior. The end-product of their efforts will be the character of pupil response to their untrained, daily teaching approach. Also pupils' achievements or failures must not be measured in terms of standardized tests but in the nature of the goals for living to which they aspire.

It is my hope that for the culturally disadvantaged—and for all children—we can open so widely the doors of learning and make the process such a joyful experience that it becomes a stimulating, personal involvement and not an endurance contest in which failure and self effacement are the foreseeable goals.

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A3. N.D.E.A.

1. The Role of Federal Funds to Improve Reading

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U.S. Office of Education

EDUCATION today has become a great national enterprise. Federal financial assistance is providing necessary funds for a reexamination of academic purposes and goals.

The impact of current federal assistance is felt, from preschool programs through graduate-college programs. Opportunities for teachers and students are multiplying at such a rapid rate that many teachers and even local school districts are not yet fully aware of all the funds available for the improvement of instruction. The following are some of these Federal acts and the benefits they provide may open the door to a broader look at education and how it may be improved for teacher and student.

Responsibility of the United States Office of Education

The United States Office of Education fulfills obligations stated in the legislative acts. Its responsibility includes the following:

1. Developing regulations which govern the administration of the various legislative programs;
2. Preparing guidelines for further investigation of the legislation and regulations.
3. Establishing fiscal policy, such as for fund accounting, and making allocations to states;
4. Making financial payment to state or local education agencies;
5. Approving state plans for participation from state agencies;
6. Assembling progress and evaluation reports from state agencies engaged in Federal programs, and
7. Reporting to Congress on the success of the various programs carried on within states.

It should be remembered that Federal funds made available for state and local programs and projects depend upon the fulfilling of mutual responsibilities. These include a thorough analysis of the varied education needs, acceptance of the Civil Rights Code, a sound policy of fiscal accounting, cooperation with all local, state and Federal agencies, and an annual evaluation report on progress of the program.

National Defense Education Act

In 1958 Congress passed the National Defense Education Act. Title III of this act was for the improvement of instruction in science, mathematics, and modern foreign languages in elementary and secondary schools. This plan is state administered with matching grants of Federal funds. Twelve percent of the acquisition funds are set aside for loaning to nonprofit private schools. Application for loans for equipment and materials in the critical subjects may be made to the U.S. Office of Education.

Title III of the National Defense Education Act suggests that many new types of instructional material including films, filmstrips, tape, and transparencies be fully utilized (textbooks excluded) along with the necessary equipment such as listening laboratories, all types of projectors, science equipment, and reference books. Funds for half of the annual salary of state supervisors of mathematics, science, and modern foreign languages were provided.

Extension of the National Defense Education Act

Title III of the National Defense Education Act proved of such benefit to the original three critical subject areas that it was extended and expanded for another 3 years in late 1964 to include the additional critical subjects of geography, history, civics, English, and reading. In 1965 economics was added.

The number of state supervisors in English and reading has had a ten-fold increase since Congress extended the National Defense Education Act last year. These supervisors are utilizing programs for inservice education in local districts to inform teachers of new classroom practices and instructional materials. Well-known leaders in English and reading are often employed by the states on a consultant basis, using National Defense Education Act funds. Their role includes discussion as well as the demonstration of new techniques and materials.

Title XI Institutes

At the time the National Defense Education Act was extended in late 1964, it was also amended to include Title XI institutes for advanced study in history, geography, reading, English as a foreign language, and modern foreign languages; for teachers of disadvantaged youths, for school-library personnel; and for educational-media specialists. Civics and economics were added this year.

The first Title XI-summer institutes were conducted in 1965 in colleges and universities submitting acceptable proposals. In 1966 there will be 536 institutes to be conducted in 287 colleges and universities in the fifty states, the District of Columbia, and Puerto Rico. Many of the programs focus on particular grade levels in the elementary and secondary schools. Each institute established its own criteria for selection and admission in order to conform to program objectives and the special requirements of the sponsoring institution.

Teachers from public and private-nonprofit schools are eligible to attend and receive a weekly stipend of $75 plus $15 a week for each dependent. In 1966 there are 126 institutes in English and 67 in reading. Further information about the location of institutes and their directors may be obtained from the Title XI Institute Program, United States Office of Education, 400 Maryland Avenue, SW., Washington, D.C. 20202.

Elementary and Secondary Education Act of 1965

In the spring of 1965 the major piece of educational legislation passed was the Elementary and Secondary Education Act (Public Law 89-10), often called ESEA. There are five titles in this act, each one focusing on a particular phase and with unique purpose in our educational structure and each having its own appropriation of funds. A description of each title in sequence will give some idea of the magnitude of the opportunities available to state and local school districts under the Elementary and Secondary Education Act. It is essential to differentiate between what is termed "general aid to education" and those acts containing actual declaration of policy relating to the purpose of the legislation. Public Law 89-10 is directed to benefit elementary and secondary-school children in both public and private schools.

Title I—Financial Assistance for Children of Low-Income Families

As enacted by the Congress of the United States, the declaration of policy for Title I is to provide financial assistance to local educational agencies serving areas with concentrations of children from low-income families and to improve their educational opportunities. Every effort to focus on groups of children from families having an annual income of $2,000 or less will be made in order to remove their educational and cultural disadvantage. The local school agency may determine the needs to secure the full development of the deprived child's mind and body. These needs may range from employing teachers to purchasing instructional materials for developing creative programs. The ultimate goal under Title I is to equalize educational opportunity among the deprived child and those more fortunate.

Role of Local Educational Agencies

Local superintendents may select a whole area within a city, town or rural locality as a "target" center. Educational services of specially trained consultants may be employed in language-arts fields. Skilled teachers will need a variety of institutional resources to provide common experiences beyond the immediate environment of these children, to motivate discussion and interest, and provide new approaches to learning.

The local education agency should coordinate its planning with other Federal programs in the community and in cooperation with non-public school administrators. There is no pattern to be followed in developing programs for the educationally deprived child. Under Title I, creativity, imagination, cooperative initiative, and educational competence are essential in planning projects; and these projects must include the promise of some academic success for these children. Participation of children from nonpublic schools should be included under Title I; such as, on a shared-time basis, after school, or through summer school.

The act requires that plans for regular evaluation and progress reports be made by the local and state agencies. Reports to the United States Office of Education are to show how effectively the special needs of educationally deprived children are being met and, what the recommendations for improvement are. These reports will finally be included in publication of the President's National Advisory Council on the Education of Disadvantaged Children.

Title II—For the Purchase of School-Library Resources, Textbooks and Other Printed and Published Instructional Materials

Title II of the Elementary and Secondary Education Act is a five-year program authorizing $100,000,000 for the first year to be allotted to states on the basis of enrollment of children in public and private schools in each state. This money, a one hundred-per cent Federal-grant program is for the purchase of school-library resources (meaning books, periodicals, documents, audio-visual materials including films, filmstrips, tapes, etc.) textbooks, reference books, and other printed and published instructional materials for the use of children and teachers in public and private elementary and secondary schools.

Title II is a *state* administered program. States participating in this Title will submit a state plan to the U.S. Commissioner of Education for approval.

Teachers and administrators of local school districts need to inventory their present supply of instructional materials and then prepare a priority list based on need. Textbooks, library books, audio-visual materials, and other instructional aids may now be purchased to expand and enrich the curriculum. This title may also be coordinated with Title III of NDEA as well as with Titles I and III of ESEA to obtain maximum educational progress for our children and youth.

Title III—For Supplementary Educational Centers and Services

One of the most exciting titles of ESEA is Title III, which authorizes a five-year grant program "for supplementary educational centers and services, to stimulate and assist in the provision of vitally needed educational services not available in sufficient quantity or quality, and to assist in the development and establishment of exemplary elementary and secondary-school educational programs to serve as models for regular school programs."

Although Title III does not require a state plan, an application from a local educational agency or agencies must be submitted to the state agency for review and recommendation at the same time it is submitted to the U.S. Commissioner of Education. It is desirable for state educational agencies to identify possible locations and needs for establishing supplementary centers in order to obtain maximum coordination of Title III projects and funds.

Another condition of the act stipulates that provision for the participation of children enrolled in private schools in the area to be served must be included. When providing for participation of students from nonprofit schools, the local agency receiving the grant retains administrative and fiscal control of the program.

Projects submitted under Title III should utilize every possible cultural, civic, community, and educational resource available. Agencies include civic and professional organizations, state departments of education, and radio and television centers. The scope of the qualifying projects is broad, demonstrating creative thinking and imaginative planning.

Title IV—Educational Research, Development and Training: National and Regional Research Laboratories

Title IV of ESEA can be considered an extension of the Cooperative Research Act (P.L. 531) originally passed in 1954. The recognition of a continuing need for educational research, confidence in certain research activities, and the accelerating pace of social change in our nation established Title IV as the Bureau of Research.

There are two patterns of research support available under Title IV: Project support and program support. Project support is appropriate when an initiator has a clearly delineated research activity or activities to solve a particular problem in education. Support ends when the project achieves its goals.

Types of Projects Supported

Research subjects are as varied as the questions educators seek to answer. Support is granted to whatever arrangements promise effective and practicable innovations. Projects are usually planned and initiated by educators and researchers who submit them as proposals. When it is deemed necessary in terms of total research goals, the office may invite proposals in critical areas. Proposals are assessed in terms of (1) their promise for meeting stated objectives, (2) the significance of those objectives in the total educational effort, and (3) economic efficiency. It is possible to fund small-scale research or development projects of $7500 or less with a minimum of delay. Consideration of larger projects takes longer. Project support deals with a single purpose—limited-time research activity (large or small).

Types of Program Support

When a research proposal requires a concentration of professional resources on a general problem area in education over an extended period of time, it may be eligible for program support. Program support is focused on a group of continuous activities which can adapt to new situations.

Activities of research and development, educational laboratories, training of educational researchers, and other appropriate proposals are used for program support. These programs allow long-term staff commitments and continuous development and adaptability and provide for liaison with the educational community. Support for research and development centers and laboratories may include construction and equipment costs.

Educational Laboratories

The difference between educational laboratories and research and development centers is primarily a matter of focus. Laboratories have the prime responsibility for identifying, researching, and implementing needed educational improvements. Research and development centers provide educational leadership in particular problem areas.

A laboratory is multipurpose and multifunctional. It involves broad representation in its planning, direction, and activities. It also provides leadership and other services for educational research, development, dissemination, and implementation activities to meet the needs of a particular region or of the nation as a whole. It is expected that centers and regional and national laboratories will link together a national communications network which will facilitate rapid exchange of ideas.

Title V—Grants to Strengthen State Departments of Education

Title V of ESEA authorizes $25,000,000, ending fiscal year 1966. Of this amount the appropriation was $17,000,000. Fifteen percent of the funds are reserved by the U.S. commissioner for special projects, for the development of state leadership, or for the establishment of special services that hold promise of substantially contributing to the solution of certain school needs to be apportioned among the states. The sum of $100,000 will be granted to each state upon approval of an application by the commissioner. The remaining amount of the Title V grant will be apportioned under a formula relating "to the number of public school pupils in all states, as determined by the commissioner on the basis of most recent satisfactory data available to him." No matching is required for the first two years of the program.

A4. READING SPECIALISTS

1. Preparing a Competent Reading Consultant

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The Role of the Consultant

In order to discuss the preparation needed for a reading consultant, it is necessary for us to look at the duties usually assigned to him. Robinson and Rauch, in their book *Guiding the Reading Program (1)*, list the specific roles of the reading consultant as being a resource person, an advisor, an in-service leader, an investigator, a diagnostician, an instructor, and an evaluator.

If we were to examine very closely the specific duties assigned to the reading consultant under each of these roles, we would see that the reading consultant must be knowledgeable as concerns all aspects of a good developmental reading program and its implications for a total district, specific school, teacher, or child. He must know how to put this knowledge into practice. In addition, he must be thoroughly versed in books, various teaching aids and materials, tests and their uses, and published research and its implication for the classroom teacher. He must instigate research projects within the district to test the validity of new materials and approaches, evaluate needs of individual children by means of diagnostic procedures, and evolve ways of disseminating information to parent and community groups.

Classroom Experience

To become a competent consultant it is vitally important that one has had classroom-teaching experience. It is necessary that the consultant understand the problems of the classroom teacher in providing for individual differences, for without this understanding it is impossible to offer practical, workable suggestions. The consultant must also recognize the limitations that school routines, clerical duties, grouping, and other problems impose upon the classroom teacher's ability to fully develop the reading program.

Graduate-College Preparation

If the reading consultant is to be conversant in all the areas which make up his role, he needs the disciplined study which is a concomitant part of a good graduate program. His basic course work in reading should, therefore, include a survey course covering the full sequential development of reading skills through all levels, a course in diagnosis and correction of reading disabilities, as well as a clinical or laboratory practicum in reading. In addition, it should also include courses in the area of personality, psychology, literature for children or adolescents, measurement, research in reading, linguistics, guidance, supervision, and other aspects of curriculum development. The wider his background, the better he will be able to cope with everyday problems within the schools. As we have seen, many of the basic fundamentals of reading can be provided for the consultant through formal classroom instruction, but it cannot and must not end there.

The consultant must be able to put into practice all this knowledge in working with teachers and pupils. For this purpose, a period of internship is suggested. During his internship a consultant in training would work under district supervisors or other consultants in the field of reading. This training would give him an opportunity to apply the many skills which have been discussed and presented to him during his graduate-course work. As an example, a consultant during his graduate training usually has an opportunity to do one or more intensive work-ups of students with reading problems. A consultant in a school district is usually called upon to test a wide variety of students from many levels during which time he must demonstrate his ability to gain needed knowledge quickly and accurately. He must determine as quickly as possible the student's strengths and weaknesses. He must then be able to determine a course of action to be followed. This plan may include remedial teaching but it always involves the classroom teacher. In this aspect, his suggestions must be concrete and applicable. This task requires understanding of the teacher's knowledge and attitude towards reading as well as a feeling of the teacher's import. If the consultant meets with the parents, he must be aware of their fears and aspirations and have an understanding of the language they will be capable of comprehending.

There are now 115 institutions which meet the minimum standards for the preparation of reading specialists as established by the Professional Standards and Ethics Committee of the International Reading Association. All of these institutions offer the reading and related courses needed to provide the graduate requirements which it is felt will provide competency in the area of basic reading skills, diagnosis, and treatment. The real value of the training received at these institutions rests upon the background, knowledge, and ability of the instructors.

In-Service Training

Depending upon the graduate courses or graduate programs in which they have been involved, the experiential background a consultant brings to his new position may or may not preclude a need for further in-service training. It is important to note that at the present time there are many reading consultants who are holding positions for which they are not qualified due to lack of adequate training. There are not enough institutions at the present to fill the demand for competent reading consultants. This demand has mushroomed during the past few months, resulting from funds made available under the Elementary and Secondary Education Act.

To fill this gap, colleges in many areas are providing consultant services utilizing their own staff. These college people are supervising consultants or serving as the consultants in local school districts. With these part-time services some schools can offer in-service training to consultants, provide on the job training for others, and at the same time maintain a well-rounded on-going program.

What Is To Be Done?

Several avenues of approach may be taken as a way of solving some of the problems posed by untrained or unqualified reading consultants. We must recognize that at the present time we certainly cannot hope to meet all the needs.

First, training institutions must provide more programs to train additional and better qualified consultants. This training needs to be intensive and must cover many aspects of the consultant's job. In addition to providing the consultant with basic skills, it must also help the consultant meet the practical, everyday problems which are to be found in any school system. If internship programs are impossible, it might then be that one of the course requirements should be to observe reading programs and the work of consultants in established schools. At the present, our school district receives many requests for future consultants to observe what our reading people are doing. These requests usually come from people who want to know how the consultant's role should be filled or how the consultant is able to work with teachers without being a supervisor. In areas where there are a number of qualified consultants or supervisors working in local public schools, colleges might use these individuals for conducting seminars and lecturing on practical approaches or current materials which the future consultant will need.

Secondly, state departments of education must begin to recognize the impact which reading consultants have upon a school. The departments must devise certification requirements for consultants and require that *all* consultants possess these basic qualifications to insure minimum competency on the job. At the present time, twelve states certify reading specialists; six states endorse regular teaching certificates to indicate the person has specialized in reading; one recognizes reading specialists who are responsible for district programs; while only three have specific requirements for the reading consultant.

Last but not least, administrators of school districts need to be made aware of the type of person and of the qualifications he needs to fill a reading consultant's position. While a good classroom teacher may be able to work with twenty-five students, he may not be able to help other teachers improve their teaching of reading or possess the necessary background for diagnosis, remediation, organization, or research. The administrator needs to select a consultant who has been thoroughly trained in reading, who possesses the personality which will permit him to work easily with the staff and the community, and who is interested in improving and enriching his own knowledge of the field. The administrator and the consultant should confer frequently to be sure the needs of the school are being met.

Thus, the job of training competent reading consultants rests upon the colleges, certification officials of state departments of education, local school administrators, and the reading consultant himself.

REFERENCE

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2. Problems in Preparing Competent Reading Specialists

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The training of reading specialists should have a high priority in schools of education. The concept that a complex process such as reading can be understood and the techniques of teaching it be mastered by prospective teachers through watered-down language-arts courses simply is not realistic. New teachers, particularly those at the elementary level, are faced with such a variety of materials, classroom organizational plans, diagnostic or evaluation procedures, and teaching approaches that the "hows" and "whys" of producing skilled readers must cause them considerable concern.

It is little wonder that so many teachers seek to further their professional competence by attending various graduate courses in reading. In some states, certification in reading is acting as a spur for many teachers to do advanced work in the field of reading. Public school reading programs are becoming both broader and more specialized. There is now a heavy demand for reading consultants and supervisors to aid classroom teachers in creating more effective reading programs at all levels. Public school reading clinics for treating the more severely disabled reader are becoming increasingly wide spread, and the need for highly trained and skilled clinicians is rapidly reaching the critical" stage. Corrective-reading classes for elementary and secondary pupils are quite commonplace and further deplete the stock of available trained personnel.

Too frequently the teachers involved with corrective and remedial work have minimal qualifications because of the pressure on school administrators to produce overnight a total-reading program. School systems have been guilty of hiring personnel to do specialized work for which they were not qualified. One misguided teacher, for example, was quite serious when she asked to visit the University of Miami Reading Clinic on a Friday afternoon because she was to become a special reading teacher on Monday morning. In another incident, a large group of teachers without previous experience or course work in reading was given a crash course evenings for two weeks so that the teachers could organize and teach corrective-reading classes. None had had prior courses in reading, and among this group were a public health nurse and a dental technician whose potential contributions to a special reading program must be held suspect.

Since these are not uncommon occurrences where schools are desperately trying to meet pupil needs, it must be emphasized that a balance must be struck between realism and desire. The fact that money, facilities, equipment, books, and instructional materials are available, even in copious quantities, does *not* guarantee that a genuine reading program will come into existence. The key critical need in all phases of public school reading programs is for qualified, not merely certified, reading specialists.

Levels of Competence

What makes the reading specialist special? The question of experience and preparation is of paramount importance and involves everyone who has a role in the total-reading program. The IRA minimum standards pamphlet states that "the reading specialist may be designated as that person who works directly or indirectly with those pupils who have failed to benefit from regular classroom instruction in reading and/or who works with teachers and administrators to coordinate and improve the total reading program of the school."

However, it is felt that classroom teachers must also be reading "specialists" to the degree that they show competence in the following:

1. *Assessment of basic reading instructional needs:* Teachers should be sophisticated in the use of diagnostic instruments of value in the classroom setting. The relative merits of using standardized tests and informal inventories and their utility in setting specific teaching objectives should be thoroughly understood.
2. *Observation of special needs:* The classroom teacher must take responsibility for making special referrals whenever they seem required. She should be aware of prominent symptoms of sensory-motor, psychological, perceptual, or conceptual deficits which would serve to inhibit normal classroom learning.
3. *Adjusting classroom activities:* Achievement expectancies for children receiving special help in reading outside the classroom must be

realistic. Teachers must understand thoroughly the need to adjust materials and to provide needed reinforcement in the skills gained through special reading instruction. Unreasonable demands placed upon children, particularly in the upper-grade content areas, often exert damaging pressures and tend to promote serious emotional problems.

4. *Practicing sound methodology:* Classroom teachers should possess a thorough knowledge of the materials and techniques of teaching reading for the range of ability levels of pupils who can profit from the normal classroom setting. It is only when teachers know what specific practices are productive for the majority of pupils that she can recognize the pupil who cannot respond and who is in need of special, intensive help.

In contrast to the level of competency which classroom teachers must have in dealing with the normal range of abilities within the classroom, reading specialists must focus more sharply upon many phases of the reading process as they relate to both critical individual and total-school program needs.

Advanced-training programs in the field of reading must be prepared to train reading specialists for many roles such as the following:

1. *Reading Teachers:* During the past few years the demand for reading teachers has increased significantly. Many schools, in attempting to set up special reading classes for pupils, have resorted to the practice of drafting promising classroom teachers as the "reading teacher." It is entirely possible that this approach may mean that many children are being deprived of a good classroom teacher who may not be adequate in dealing with relatively severe reading problems. Competency in diagnosing and instructing in special-reading classes demands a greater degree of specialization in reading than the majority of classroom teachers possess. It is probable that a minimum requirement for such teaching would be the master's degree with a major in the area of reading.
2. *Reading Clinician:* While it would be an exaggeration to suggest that children with normal intellectual potential, but possessing specific language disabilities and/or basic perceptual problems, are being adequately cared for in today's public schools, there is a gathering momentum to do so. Many school systems are creating reading clinics or centers which can give such children the intensive individual or small-group instruction they need. In order to achieve the high level of competency needed to do this work, advance courses in diagnostic techniques, clinical procedures, and specific teaching methods are needed by the clinician. Much too often centers are established but are not staffed by persons with sufficient expertise to warrant being called a clinic.
3. *Reading Consultant-Supervisor:* The specialist in this position is usually more concerned with promoting good classroom practices in teaching reading than in working with children with reading problems. While it is assumed that such persons will be familiar with all phases of the reading program, the main emphasis would be in helping to establish a sound developmental reading program throughout the school system.
4. *Clinic director*: One of the most highly skilled positions in reading would involve directing reading clinics at the public school or university levels. Organizing and coordinating such programs would not only require supervisory skills but a thorough knowledge of diagnostic and remediation techniques. In addition to an in-depth understanding of severe reading disabilities, the clinic director probably would have responsibility in training staff members, coordinating activities with the public schools, making referrals to other persons such as neurologists or psycholo-

gists, and conducting parent interviews.

It is obvious that in all of these basic types of positions in the reading field, there is the need for intensive, specialized study that goes beyond the usual undergraduate courses in language arts or reading. While it is not within the scope of this discussion to explore all possible courses or practicums which the reading specialist should experience, there are several pertinent problems in relation to this training which demand attention.

Of major importance in the training of specialists in reading is the planning of the course work which universities or colleges will offer for persons interested in pursuing advanced degrees. The four major areas, as set forth in 1961 by the IRA Committee on Professional Standards, were (1) foundations or survey of reading course, (2) diagnosis and correction of reading disabilities, (3) clinical or laboratory practicum in reading, and (4) supervision and curriculum in reading.

While the majority of course offerings in the foundations and supervision and curriculum areas are quite satisfactory, important stumbling blocks are often encountered in the diagnostic and correction aspects of the program. In this respect several problems seem to be outstanding:

1. *Courses in diagnostic techniques:* Many courses in the diagnosis of reading disabilities are superficial and result in verbalism on the part of the student rather than a clear insight into the basic learning difficulties of the child. All too frequently we find the reading teacher or clinician's understanding of tests, such as the WISC, Binet, Bender-Gestalt, Benton Visual Retension Test, the HTP, and many other diagnostic tools, to be quite nebulous. Reading clinicians in particular should be capable of administering and interpreting many tests in addition to the usual standardized and informal tests introduced in courses in the diagnosis of reading disabilities.

   Diagnostic courses need to probe into the areas of perception, concept acquisition, visual-motor functioning, associative learning, and the language processes if they are to become more significant.

2. *Courses in corrective and remedial techniques:* Such courses frequently fall short of producing accomplished clinicians and reading teachers because of the insistence upon relatively meaningless busywork, such as term papers, rather than focusing upon the child and his needs. It should be apparent that there is no substitute for direct experience in working with children under supervision in a clinical setting to produce polished reading teachers. It is also obvious that some professors in our schools of education fervently espouse basic principles of good teaching on the one hand and blithely ignore the fact that they themselves are living proof of how easy it is to violate them on the other. For example, demonstrations have long been held as an excellent means of teaching students diagnostic or remedial techniques. However, demonstrations will have little value if the class does not bring to them the concepts which make their observations meaningful. How often professors will talk about the importance of readiness and yet ignore it in their own classes!

   Although lectures may be enlightening and instructive, they, too, may have relatively little meaning without direct experience in working with children with reading problems. Lectures and demonstrations must be followed by *doing* if they are to have a positive impact in the training program.

   Another problem relating to courses in corrective and remedial techniques is that public schools may pressure a university or college into providing "cookbook" courses because they need reading teachers in a hurry. While we must be in sympathy with the urgency of current needs, such courses do not adequately prepare an individual to deal with children who are perceptually disturbed or who have other severe learning disabilities.

It is a hard fact that there are no simple short cuts in developing competent reading specialists. At the heart of any effective training program must be a reading clinic with an excellent staff to supervise the work of the trainee. These facilities should provide ample space for diagnosing and teaching children as well as demonstration rooms with one-way-vision mirrors where advanced students can observe testing or teaching techniques. Universities and colleges need to develop active reading clinics where staff and students can work together in diagnosing, teaching, and conducting research.

3. *Flexibility in creating new courses:* Just as those at the university level advocate a dynamic public-school curriculum which is constantly revised to meet current needs, so, too, must schools of education and graduate schools be sensitive to the need for revision or change in their course offerings.

   Within the field of reading a number of areas need to be given greater consideration. For example, there is the pressing problem of training teachers to work with adult illiterates. While the "each one teach one" theory is fine, it may, unfortunately, represent a prime example of unskilled labor. Therefore, courses should be offered to train persons to teach the illiterate and to recognize his very special needs. Also, with so much emphasis being given to linguistics, there is a need for courses which really focus upon this discipline's relevance to the reading process rather than produce pseudolinguists who have merely mastered some of the terminology. Programed learning is yet another area which should receive more attention in reading courses. Many of the principles of programed instruction, such as pacing, reinforcement, and feedback, have significance in the teaching of reading.

Reading which pervades all aspects of an individual's educational, cultural, and economic goals is no longer of peripheral interest in the school curriculum. Public schools will continue to exert pressure on our universities and colleges to produce more and better reading teachers and reading specialists. To accomplish this goal is no small task; and, while the professional competence of the reading specialist is steadily growing, our courses in reading should become more comprehensive and better tailored to produce reading specialists who can successfully meet the varying demands that will be placed upon them.

B. USING LINGUISTICS IN TEACHING READING

B1. OVERVIEW

1. The Many Facets of Linguistics

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A TEACHER picks up a book designed to teach reading. She sees the word *linguistic* on the cover. She opens the book and sees groups of words, such as: *sat, mat, fat, cat; hate, late, Kate, date.* She relates such groups to the word *linguistic* and surmises, "Oh, so that's linguistics—family words. Why, I've been teaching them for years. So what's new?"

Another teacher, seeing the same book or another in which there is a heavy emphasis upon sound-letter relationships, surmises, "Oh, so that's linguistics — a dolled-up phonics. Why, we've had phonics programs for years. So what's new?"

I've heard statements like these not just once but often enough to surmise that there is a need to point out some of the many facets of linguistics which might apply to the teaching of reading. The title of this article suggests that linguistics, like a cut gem, has many facets, segments, or aspects—as do psychology, physiology, neurology, sociology, anthropology, and pedagogy—that might be contributory to the teaching of reading. My emphasis is upon some of the facets of linguistics.

Extent of the Field of Linguistics

The proper subject matter of linguistics is the sounds people make in speaking with one another. We call those sounds "human language." Linguists, as scientists, observe those data of sounds in an effort to understand their nature and their function. They find regularities, order, and patterns therein. They form generalizations, conclusions, or theories therefrom and test them out on additional data, rejecting, accepting, or modifying the generalizations, conclusions, or theories upon additional testing with additional data. Because those sounds are symbolized in writing, the interest and field of the linguist have extended to the area of writing and its relationship to the sounds that it represents.

One hundred years ago, William Dwight Whitney suggested the extent of the field of linguistics:

> The material and subject of linguistic science is language, in its entirety; all the accessible forms of human speech, in their infinite variety, whether still living in the minds and mouths of men, or preserved only in written documents, or carved on the scantier but more imperishable records of brass and stone. It has a field and scope limited to no age, and to no portion of mankind. The dialects of the obscurest and most humbly endowed races are its care, as well as those of leaders of the world's history. Whenever and wherever a sound has dropped from the lips of a human being, to signalize to others the movement of his spirit, this science would fain take it up and study it, as having a character and office worthy of attentive examination. Every fact of every language, in the view of the linguistic student, calls for his investigation, since only in the light of all can any be understood. To assemble, arrange, and explain the whole body of linguistic phenomena, so as to thoroughly comprehend them, in each separate part and under all aspects, is his endeavor.

Oral Language Development of Children

A small part of the whole body of linguistic phenomena or one of the facets of linguistics is the development of oral language in children. They seem to learn to speak through three modes: imitation, participation, and analogy. The sounds they hear are not those that the linguist isolates and studies; rather, they are those that may be viewed as the flow of the rhythms and melodies of sounds. From their attempts to imitate the sounds that come to their ears from those around them, the children, through participation in speech, gradually master enough of those sounds to make themselves understood. Linguists have sequenced the normal mastery of sounds among children. Meanwhile their listening ability develops much more rapidly than does their speaking ability.

Sounds

Professor Higgins, in *Pygmalion*, boasted that he could pronounce 130 distinct vowel sounds to Pickering's 24, finding them "all as different as A and B." Linguists usually distinguish about 45 significant sounds—those that make a difference in meaning. Our own little girl of 26 months, in the words she can say, has demonstrated a mastery of all the vowel sounds and most of the consonants. She has difficulty with the /z/, as in *nose;* the /v/, as in *give;* the /z/, as in *pleasure,* the /j/ as in *fudge;* the /θ/, as in *thumb;* and the /h/, as in *there;* and she is consistent in her use of /h/, /r/, and /l/. She has no trouble with terminal-consonant clusters as in *milk, jump,* and *dust.* She has little difficulty with initial-consonant clusters unless the second sound is /r/, as in *grass,* or /l/, as in *glass.* And she is at home with such minimal contrasts as found in *pat-bat, hot-bit,* and *Pam-pat.*

Form Classes

In general, linguists distinguish four parts of speech in English—nouns, verbs, adjectives, and adverbs—and one smaller class—pronouns. They also tell us that children learn words more or less in that sequence. So have we found it with our little girl. Nouns predominate in her speech, followed by such verbs as *walk, run, see, bite, eat,* and *sleep.* She intermingles a few adjectives, such as *hot, tired, bad* and *good.* The only adverbs she uses are *up, down, here, outside,* and *in car.* Note the concreteness of the abstractions found in her words. She uses three pronouns, *I, you,* and *it,* as in *I like it* and *I love you.*

Sentence Structure

A sense of sentence structure or word order seems to begin, say the linguists, with the use of one word in the same position more frequently than other words in that position. This pivotal word might be, for example, *want.* Other X words are then inserted by the child in the other position. Between 18 and 24 months the child moves to such constructs as *want milk, want bye-bye, want candy, want night-night, want up,* and *want down.* As the vocabulary grows, the child, by analogy, inserts the additional words into the X slot; and, gradually, pivotal words grow in number, too.

The linguists, even though they may not agree on the number, have established basic sentence patterns or sentence kernels as the foundations of our language. Right now, our little girl has mastered five of them. They are Noun-Verb (*Doggie run*); Noun-Verb-Noun (*Doggie eat bone*); Noun-Adjective (*Doggie tired*); Noun-Adverb (*Doggie outside*); and Noun-Verb-Noun-Noun (*Mommy give doggie bone*). Note the absense of the linking verb in *Doggie tired* and *Doggie outside.* One of the interesting phenomena in children's speech development — as with our little girl—is the use of analogy in these sentence patterns, for they insert other words in the sentence slots and generate sentences which they have not heard anyone else utter. Word orders are redundancies of pattern that provide signals of grammatical meaning that goes beyond the lexical meaning of the words contained in the sentences.

Besides the grammatical-meaning signals of word order, the linguists also point to the grammatical-meaning signals of additions to words—as in boy*s*, run*s*, jump*ed*, jump*ing*, old*er*, old*est*, funn*y*, and open*ly*. Our little girl uses only the addition of *ing* without the auxiliary or helping verb. Thus she says, *Doggie barking, Doggie eating,* and *Doggie sleeping.* By analogy, she is beginning to add the *ing* to more and more verbs.

Another type of grammatical-meaning signal is that found in function words, the hardly more than 300 words that make our language more complex and more meaning bearing by showing relationships among nouns, verbs, adjectives, and adverbs. Regardless of what name we give to them, they are such words as *the, a, an, in, at, on, by, and, but, when, after, what, where, some, few, is,* and *was.* These words do not have outside referents as do *table, chair, run,* and *walk.* They make up 104 of the Dolch-220 words. They seem to succeed in time the appearance of nouns, verbs, adjectives, and adverbs. Our little girl uses only the "where" words of *in* (*in car*) and *on* (*on bed*), together with the question signaling words of *where* (*Where going?*) and *what* (*What doing?*).

I said earlier that children hear a flow or stream of sounds that have a rhythm and melody. We call the song of speech "intonation." The linguists point out patterns of stress or levels of loudness (4), patterns of pitch or levels of rise and fall (4), and patterns of pauses (4), which also serve to signal meaning. Our little girl has mastered most of the intonation patterns of our language. She uses two different intonation patterns for questions:

DO *SIDE?*
What *Dog* *go out* She
ing? *gie*
uses a rising pattern in direct address:
my, *dy.*
MOM *DAD* She uses the intonation pattern that goes with a series, as
O T
when she counts n w Three. She
e, o,
is successful in using the intonation patterns that go with statement, commands,
N
and the emphatic *O*!

Finally, she has learned by imitation, participation, and analogy to use the meaning-bearing cues of facial expressions and other bodily movements.

What's in store for her between now and the time she enters school so far as her development in speech is concerned? She will continue to add to her storehouse of nouns, verbs, adjectives, and adverbs, little by little moving to more extensive and intensive abstractions. She will not only master the remaining basic word-order patterns but will incorporate structure words into them. She will learn to generate longer sentences, invert sentences, and produce questions, passives, and other transformations. In doing so, she will learn to use the additions to words that signal number, time, and other aspects of a more complex language structure. And she will learn to use those connectives that not only tie parts of sentences together but also tie sentences themselves together into longer units of discourse.

And then she will go to school to learn how to read. There will be other children there, perhaps of much the same middle-class environment. In any case, each child will have his own background of language experience as a referent for learning how to read. Each child will have his own idiolect—individual mode of speech—as a part of a larger dialect. And how will these children differ? They will differ in their pronunciations of words—to a greater or lesser degree. They will differ in the words they use and the lexical meanings they ascribe to them based upon their social-cultural background. They will differ in the words at their command that they put into the sentence slots, and the words they use will differ in their degree of abstractness. All will be able to use the basic sentence patterns; but they will differ in their ability to expand, invert, and transform those patterns.

The child who says, *I knows him, and him know me,* or *He home now,* or *We was there* will have a different grammatical structure from that of our little girl. He may also differ in his intonation and in his patterns of stress, pitch, and pause. He will vary in his vocabulary. But, regardless of any and all of their differences, every child will face a new set of symbols when he is confronted with reading.

Differences between Spoken and Written Language

The linguist is, indeed, interested in this symbolic representation of spoken language. He points out the differences between the two media. Only twenty-six letters are used to represent the 45-odd sounds of speech and all the variations in dialectic pronunciations. The stresses, pitches, and pauses—the song of our spoken language—are absent from the written form. Absent, too, are the bodily cues, the false starts, the partials and the interjection of non-relevant sounds and words that are common to children's speech. That which occurs in time in speech is now transferred to a medium of space, in a left-to-right movement, and with spaces between words, none of which are present in speech. Where, too, in speech are the capital letters, the lower case, the different prints, and the punctuation marks found in writing?

Dialects

It is my hope that the teacher of my little girl will attend to both her spoken language and those of all the other children who are committed to her care. I hope she will respect their dialects and idiolects, attending to the historical and comparative studies of linguists that tell us that "standard English," rather than being a set entity that is "corrupted" into dialects, is itself a dialect that has grown into a "standard" only because of wide use. I hope that she will be of such democratic nature that, with the linguist Whitney, she will recognize

> that one man's speech is just as much a language as another man's; that even the most cultivated tongue that exists is only the dialect of a certain class in a certain locality—both class and locality limited, though the limits may be wide ones.

Some Suggestions to Accompany the Teaching of Reading

It would please me if the teacher were to read a great deal to my little girl and her classmates. And if records and tapes were available, it would please me if the class and its individual members would be given the opportunity to listen to them. It would please me, too, if the teacher would give the children many opportunities to speak in choral work, in creative dramatics, and the like. For the children will continue to learn by imitation, participation, and analogy.

If words are presented singly, I wish that the teacher would be aware that the pronunciation of each word is done with primary stress and may or may not be given the same kind of stress in speech. I wish that she would ask the children to use each word in phrases and sentences, attending to how we say that word in those contexts in contrast with how we say it in isolation. I wish that she would be cognizant of the fact that the word that is normally said the loudest is the word that comes before a punctuation marker and that she would help the children to practice that intonation accordingly. (Any deviation therefrom results in a change in meaning. There is a great deal of difference in meaning between the sentences: *Tad is a HOT dog* and *Tad is a hot* DOG.)

And, for those who write the books, I would be pleased if they would not only sequence the word patterns but also would incorporate structure words in a planned and spaced manner for sentence constructs that allow for the flow of language. I would be pleased, too, if they would incorporate more configuration words in the midst of their patterns to give the child the opportunity to reach a little. And I would be pleased if the authors would sequence, at least at the beginning of the reading program, the sentence structures.

Finally I would be delighted if the teacher would bring to my little girl and her classmates some of the interesting history and development of our language as described by linguists. I would like her to explain such items as these: *April* comes from a word that means "open." The earth opens up and plants start to grow. *May* comes from a word that means "bigger." It's the month when the plants grow bigger. The flowers of those plants have names, and those names have meanings too. For example, *tulip* comes from a word that means "turban." *Daisy* comes from "day's eye," referring to the center of this sunshine flower. *Pansy* comes from a word that means "thoughtful"; *Nasturtium*, "nose twinkler;" and *dandelion*, "tooth of a lion." So much for a few among the many facets of linguistics that range far beyond word patterns and sound-letter relationships, important as they are.

Professor Higgins extended Miss Doolittle's success with the pronunciation of the *-ain* pattern to her conquest of the English language when he exclaimed, "By Jove, she's got it." I doubt that we teachers could extend the many facets of linguistics—only a few of which I have presented—to its conquest of teaching the reading of the English language. We could not say of Lady Linguistics, in the light of the contributions of the many -ologies, "By Jove, she's got it." However, I feel confident that we might say of her, "By Jove, she's got SOME of it."

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B2. OPERATION IN EARLY SCHOOL YEARS

1. The Flow of Thought Through an English Sentence

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The Macmillan Company

IF READING is concerned with meaning, we must consider how English sentences deliver meaning. We are not teaching reading in the abstract but reading in English. We must attend, therefore, to the structures which convey meaning in English sentences and to the kinds of meaning they convey.

To go this far and no farther would leave us deep in linguistics with no path to the field of reading instruction. We must, therefore, consider the problems created for the *reader* by English sentence structures. It is the purpose of this paper to point out a few of these problems in the hope that other people may be interested in extending the analysis. These "others" need not be scholars; they may be classroom teachers who are sensitive to the language and thoughtful about it.

The traditional grammar on which we were nourished is not very helpful, but for that matter neither are most of the modern linguistic analyses. What we need is a fresh, simple view of English structures as they affect the practice of reading.

Let us begin with the fact that, in English, meaning is conveyed through groups of words working together. It is not conveyed one word at a time additively. Take, for example, a noun phrase consisting of a noun preceded by modifiers and determiners: the little white house.

The reader cannot be sure of my meaning until he comes to the word *house*. At this point he finds completion or closure and a unit meaning is established:

the . . .
the little . . .
the little white . . .
the little white house.

To see what is involved here, suppose the phrase had been *the little white pebble*. The meaning of *little* would be quite different since *little* in terms of *pebbles* is quite different from *little* in terms of *houses*. Similarly, *white* is one thing in terms of pebbles and another in terms of houses. It is clear that the reader can assign meaning to the words in a phrase only when he comes to its close. He must, therefore, hold meaning in abeyance.

There is an interesting reinforcement to this view in the physical act of perception. Photographic studies show that the length of eye span in reading across a line of print is somewhat less than had once been supposed. We see relatively few characters in any one focus on a line of type before jumping to the next span of characters. The group of characters we perceive in any one focus is not necessarily a word group. In fact, a single focus may land us in the middle of a long word. Our eyes move across a line of print in jumps and pauses quite independent of meaning. This fact has led some observers to remark that meaning is acquired during the period when the eyes are moving. I would prefer to say that meaning is held in abeyance during the physical acts of eye movement.

What is true in the reading of a single-word group is true of the whole sentence. It is common sense that the reader must keep the beginning of a sentence in mind to the end of the sentence—a simple act of memory.

Far more than memory is required of the reader, however. He must hold meaning in abeyance until the end of the sentence. Two major factors of English account for this necessity. The first is semantic; the second is structural. First, most words in English have more than one meaning. Many words have a great variety of meanings, sometimes with no obvious relationship among them. Which particular meaning of the opening words of a sentence is pertinent depends upon the context of the entire sentence. It is only at the end of the sentence that the reader can fix the meanings of the individual words.

Of course, this generalization must not be pushed too far. There are many short, simple sentences in which the referent of each word is clear in itself or is made clear by context. Depending upon the nature of the game in *Tom hit the ball*, we would know who Tom is, what kind of a ball he hit, and whether he struck it with his hand, his head, his foot, or his bat or racket. However, in normal informative written discourse, the generalization holds.

The second factor requiring the reader to hold meaning in abeyance is the variety of English sentence structure. The word groups which compose English sentences may be related to each other in four ways. There are the subject-predicate relationship, the co-ordinate relationship, and the relationships of complement and modifier.

The reader's structural problem is to determine the word groups and then to see how these groups relate to one another. Until he has done this distinguishing, he must hold the meaning of the sentence in abeyance.

A prime example of the effect of word groups upon one another occurs with sentence modifiers; that is, words or word groups whose meaning applies to the whole of a sentence. To pinpoint this kind of modifier, consider the following sentences comprised of the same words:

Happily, he died.
He died happily.

In the first sentence, the writer is commenting on the fortuitous fact of a man's death. The word *happily* applies to all the words that follow. In the second sentence, the writer is commenting on the manner of the man's death. The word *happily* applies only to the one word immediately preceding.

In general we may say that any introductory adverb modifier—word, phrase, or clause—modifies the rest of the sentence. The reader must, therefore, spread its meaning across all the words that follow. This point is an example of holding meaning in abeyance to meet structural requirements.

Another prime example occurs with an introductory participial phrase. Consider the following sentence:

> Holding to the ledge with one hand, the climber tried to free the rope with the other.

The entire participial phrase applies to, or modifies the first following noun, the word *climber*. It may well be argued that the introductory phrase applies to all the rest of the sentence. We may see this relationship more clearly if we transpose the sentence as follows:

> The climber held to the ledge with one hand and tried to free the rope with the other.

Here the coordinate-verb structure requires the reader to hold the meaning of *climber* in abeyance until the second verb *tried* appears. Or if you prefer, it requires him to insert the meaning of *climber* before the word *tried*.

Either way you look at it, the effect of deferral or abeyance is in evidence. Now, how does all of this happen? And if it does, how does anyone but a genius ever learn to read? Fortunately, the speed of electro-chemical nerve impulses through the brain is very high—something like 10 miles per second. When the end of a sentence is reached, the reader's built-in brain computer sorts out the relationships of the word groups and selects the particular meanings which the context requires. To borrow from computer language, all of this sorting and selection may take place on a shared-time basis; that is, with particular tasks being solved on an apparently simultaneous basis. Unless ambiguity has arisen, the reader moves to the next sentence with no apparent pause.

All goes well if there is no ambiguity, but unfortunately English is often unavoidably ambiguous both because of variant word meanings and because of structure. Even without ambiguity, difficulties in structure create reading problems. It is my belief that an understanding of how these structures deliver meaning will greatly assist students in becoming mature readers.

I should like to turn now to the English sentences. I am using the words *kind of meaning* in a special sense. I use them to refer to two broad divisions which will be familiar to you from traditional grammar. For purposes of reading instruction, we may group statements as to whether they report action or attribution. Either they report action or they attribute identity, characteristics, or description to the grammatical subject. The reader who is aware of this distinction has an important tool at his command for sorting out meanings.

This extent is as far as we can go with the traditional grammar in this analysis. It will become clear that many so-called action verbs do not in fact report action at all. Indeed, it is my suggestion that action is reported only by the past tenses of a limited class of verbs and not even by all verbs in this class.

It will be useful to place this analysis of kinds of meanings in a particular framework. The framework is the direction in which thought flows through an English sentence. We tend intuitively to suppose that thought flows constantly and continuously from left to right—the direction in which words are laid down by writers and printers of English. There is nothing in the nature of human intelligence that requires this order. Hebrew, Arabic, and other languages are written and printed in other directions. Yet because we read and write from left to right in English sentences, we tend to suppose that this directional pattern is inherent in the language.

It is important to understand that in a great many English sentences the flow of thought is not simply left to right but is in fact circular. It is important, for one thing, because of the emphasis on rate of reading that persists not only in schools but in adult reading clinics as well. Let me make this one further distinction. In mature reading the eyes proceed steadily from left to right except for conscious regressions, but the mind does not. This difference is possible again because of the difference between the very high speed of the brain and the relatively low speed of eye muscles.

The prototype of the action sentence is *Tom hit the ball*. The meaning flows or accumulates from left to right. The word *hit* is a so-called action verb in the past tense.

The prototype of the attributive sentence is *Tom is the president*. The verb is a form of *be* and is called a linking verb. Note that the words following the verb refer to the word preceding the verb. The flow of thought is from left to right and back leftwards to the start of the sentence. It is in effect circular. This same phenomenon occurs with all linking verbs such as *look, remain, stay, sound* and with *get* and *keep* when used in certain senses. The meaning delivered in all these sentences is identification, characterization, or description. Or to use our general term, it is attributive.

Now notice an interesting thing. The same effect occurs whenever a form of *be* appears in a verb phrase. It occurs in the progressive tense forms:

Tom *was hurrying*.
The birds *are singing*.

It also occurs in the passive verb form:

The house *is sold*.
The quarterback *was injured*.
The car *had been wrecked*.

In all of these instances, the form of *be* seems to turn the flow of thought back to the beginning of the sentence. The meaning is not one of action but of attribution.

The verb *have* is a troublesome one for linguists. When used alone it is classed with verbs like *hit*, as a so-called action verb. Yet it never refers to an action even in the past tense.

Eve *had* a cold.
The Senator *has had* a change of heart.

These are not reports of action. They are static, descriptive statements.

In a similar way, it can be shown that the present-tense forms of so-called action verbs do not report action but are essentially static and descriptive: *Ice melts. The dogs bark at night.*

Most interesting, perhaps, is the effect of those auxiliary verbs that are called modals. These are the words *can, must, should, dare,* and the like. They always appear with the base form of the verb. Their function is to indicate an attitude, a mood, or a potential. They do not report action but the potential for action. They are genuinely attributive.

The bus *should arrive* at any moment.
Jack *can play* the drums.

What I have been leading up to is this: in our grammatical study of English, we make too much of action. From the standpoint of meaning, action is reported in only a limited number of sentences. In a far greater number, the report is one of description or identification. The meaning is attributive.

I suggest that the traditional grammar analysis is not useful in teaching because it over-emphasizes the element of action. It tends therefore to over-emphasize the accumulation of meaning in a straight left-to-right direction. This pattern of delivering meaning occurs only in the relatively small number of sentences that really do report action. In the far greater number of sentences, meaning is attributive and is delivered in a circular manner.

We do a disservice to children when we transfer the traditional grammar analysis to reading, even when the transfer is merely implicit. We give the child a mental set that does not accord with the reality of his future reading experience. It is of course quite possible to teach reading without any reference whatever to the structure of English sentences and the means by which they deliver meaning. But it seems self-evident that an elementary understanding of what is happening in a sentence will enable a reader to deal with it more efficiently.

What are the practical considerations? What can be done to help the child who is learning to read? We would do well at this point to consider how a mature reader operates, for his methods are the goals of reading instruction. To restate more simply, the goal of reading instruction is to produce mature readers.

It would be neither appropriate nor useful to attempt a complete definition of the mature reader. What we are concerned with here are the strategies he uses to deal with the patterns and structures by which sentences deliver meaning: (1) The mature reader does not expect to read continuously at the same rate. (2) He expects to halt on occasion, to retrace a sentence in his mind, or to reread it. (3) He holds meaning in abeyance until he reaches the end of a sentence. (4) He is alert to cues which distinguish action and attribution. (5) When attribution occurs, he follows the circular pattern in which meaning is presented.

This time is not a proper occasion for laying down a list of specific teaching devices. The most than can be done is to call attention to the general principle that meaning accumulates in a straight left-to-right direction only in action sentences and that meaning is delivered in a circular manner in non-action sentences. The obvious practical step is to call attention of teachers and children to this distinction. The most helpful clues are the verbs and modals as described above; that is, the verb *be* and the verb *have* used alone, and the modals such as *can, could, might,* indicate attribution and make the flow of thought circular.

This understanding of English sentences might conceivably place a powerful tool in the hands of readers. Properly reinforced in the classroom, it could lead children to the goal of mature reading. I believe it is worth serious consideration. But it is only a beginning. Much more lies beyond, for the mature reader must be sharply aware of the basic structures of the sentence and of how they are related to one another.

2. An Editor Looks at Children's Language

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AS I STUDIED the title of the talk assigned to me for this paper, I soon discovered that I was not certain about its precise meaning. Was it "An *editor* looks at children's language," or "An editor looks at *children's language*"?

At first it seemed I had only graphic symbols to aid me. Then a self-image asserted itself, and I concluded that the views of an editor on recent studies of children's language might be of some interest, especially if we considered briefly the implications of these findings for the preparation of materials for the teaching of reading.

Usually most editors do little original research. The creative aspect of our work is rather in using the resources of the publishing industry to give form and structure to ideas for improving instruction and in so doing, help to build new and better materials. To be effective, the editor must try to keep abreast of developments and innovations in his field. Also he must, insofar as possible, view with an equally open mind the theoretical findings of highly specialized and technical disciplines and the practical operations of newer classroom programs.

Crucial Studies of Children's Language

What then does the editor see as he looks at children's language—or more accurately at what researchers and scholars are discovering about children's language? First, we see the young child who possesses an amazing knowledge of language. Most obvious is the extent of his vocabulary. So much has happened since Robert Seashore's *(11)* headline-making report in 1940, that we are likely to forget how long we have known that six-year-olds understand not hundreds but thousands of words. It seems to me that we should know more about the depth of the child's understanding of words in his vocabulary and the rate and manner in which it grows, but such information will undoubtedly come in time.

In the studies of Strickland *(13)* and Loban *(9)* we see that children at an early age are aware of and use a wide range of sentence patterns and that they are able to manipulate sentences through the use of movables and elements of subordination. Their oral language displays a sophistication and maturity not evident in beginning reading texts. We also see how closely language ability and success in reading are related.

Second, the editor, like the teacher, sees that the language of thousands of children is still immature and often inadequate for purposes of successful instruction. Children from culturally-deprived homes, rural or urban, Caucasian or non-Caucasion, are often seriously lacking in experience in using language *(2, 3)*. Not only are they unable to verbalize easily and freely or to comprehend accurately what is said to them but also they have not listened to nursery rhymes, poems, stories or other forms of written prose.

Third, we are being made more fully aware of the varied dialects and sub-dialects which are spoken in our country *(10)*. For generations, authors and editors of textbooks and most teachers who used the textbooks ignored the fact that the New Englander, the South Carolinian, New Yorker, and the Texan used slightly different dialects. I was first pedagogically aware of these differences when I discovered in Gates' study of spelling errors that the most common misspelling of *saw* was *sor (4)*.

The German, Italian, Scandinavian, or Jewish children who came from homes where broken English or a native language was spoken were strongly motivated to learn "good English." Parents often expected their children to help them change their speech habits. Perhaps some of the children for whom dialect presented an insurmountable obstacle were dropouts; but for many of them the problems were overcome, although some remnants of the native languages may still exist in the speech of some large groups of people. So great was the insistence on so-called correctness that the use of dialect or substandard forms in textbooks became an accepted taboo. Nevertheless, the dialects of great segments of the population are established within the home and neighborhood.

Finally, as we look at children's language, we see mounting evidence that immaturity, lack of language controls, and indifference are not only disadvantageous to learning but also somehow related to intelligence. If one of our goals is to equalize opportunities for all children, we see language as a controlling factor and feel compelled to do something about it.

Studies of children's language suggest then (1) that most children entering school possess a very considerable knowledge and control of language—much more than was formerly assumed; (2) that the children who come from homes with a meager language environment may have had so little experience with standard English that they are handicapped in school activities; (3) that significantly different dialects are spoken throughout the United States; and (4) that it seems possible to affect intelligence by improvement of language.

Innovations in the Teaching of Beginning Reading

For a teacher or an editor this kind of information, important though it is, is not enough. If we are to help improve children's growth in all aspects of language-speaking, reading, writing, and listening, we must also investigate other disciplines, especially those of the psychologist, the psychiatrist, the sociologist, the anthropologist, and the linguist. And we soon discover diverse and often conflicting views. How can these findings and theories be utilized? One cannot say *reconciled*, for in my opinion some are irreconcilable.

One significant group of linguistic specialists are of the opinion that at the beginning stage decoding is the child's first reading task. They believe that the child must learn to recognize the relationships between the spoken and written word and to associate sound and symbol with a fair degree of accuracy so that he can generalize about these relationships. To facilitate the child's mastery of the decoding task, they believe that phoneme-grapheme relationships should be presented in scientifically controlled sequences. Few if any irregularities are permitted, as the forming of generalizations about language is the primary objective. Once these basic generalizations are fixed, it is believed that the child will easily grasp exceptions and acquire principles of lesser utility.

For the past several years a few dedicated individuals have been developing and testing materials and methods of instruction to support this theory. The works of Charles C. Fries, Rosemary Wilson, Henry Lee Smith, Robert Hall, Pauline Rojas and Ralph Robinett, and

Donald Rasmussen and Lynn Goldberg are especially noteworthy. It is my understanding that on the basis of extensive classroom use and experience both materials and methods have been adjusted. Only recently are published materials being made generally available.

A number of persons concerned with beginning-reading instruction, linguists as well as reading teachers, have expressed reservations about the strictly controlled phoneme-grapheme approach. Levin *(10)* who supports the theory that children should learn to generalize from experiences with regular phoneme-grapheme relationships, has also in research with Marchbanks *(10)* provided useful evidence about children's perceptions of letters and words. Apparently the first letter of the word is most significant; the last letter, next in importance. What bearing this information may have on the text of beginning reading is not yet clear. Also, the reading programs mentioned above seem to neglect the child's amazingly large vocabularly, the presumed value of the natural use of language, and the problems of the child with a non-standard dialect. As these materials are used increasingly in a variety of schools and classrooms, we shall undoubtedly gain further evidence about the effectiveness of the programs.

Knowledge of linguistics suggests other approaches to beginning reading. A number of scholars and teachers are testing the theory that the child will learn to read more easily and successfully if he recognizes early how language operates—if he can see system in the way that sentences are put together or, in effect, if he is introduced to rudimentary syntax *(1, 5, 6, 7)*. These researchers prefer to have the child introduced to meaningful sentences. Almost immediately he discovers how he may use patterns and parts within the sentences to express himself in various ways. Intonation, pitch, and stress, with which he is familiar in his spoken language, are used to change or reenforce the meaning of written words. To the editor, such approaches seem especially promising. They capitalize on the child's love of word play; they utilize the principle of discovery and build on the child's knowledge of language.

Less scientific and perhaps somewhat less innovative is the so-called language-experience approach to beginning reading. It seems to me that in using this approach teachers probably place more reliance upon what we know about children's language and learning and somewhat less on the phonology, morphology, and syntax; that is, the vocabulary, the sentence patterns, and even the dialect of the children are represented in "their written-down talk." Relationships between sound and symbol and the values of stress and juncture are observed and learned in meaningful familiar context. The child uses and extends his knowledge and skill in all aspects of language—speaking, listening, reading, and writing. Most reading programs make some use of the language-experience approach. Probably only a few use it as the basic method of instruction.

How best to utilize the scholar's and scientist's studies of dialect is still not clear. We know of course that a child should not be ridiculed or penalized because his dialect differs from so-called standard English. We know that hundreds of children speak one language in the schoolroom and another at home and with their companions. We know that hundreds of words which the child learns to recognize visually are quite different from the corresponding words which he utters. Some authorities are suggesting that these children should be introduced to reading as the reading of a second language. Certainly the principles of learning a foreign language can undoubtedly be applied, such as emphasis on aural-oral experiences and the mastery of familiar sentence patterns.

To my knowledge no one has seriously suggested transcribing dialect into written language for the purpose of instruction *(12)*. Recently, however, in discussing reading with a group of teachers in a large inner-city school where dialectical differences are a serious problem, the school principal suggested writing stories in the language of the children and using not only their experiences, vocabularies, and sentence patterns but also respelling words to represent the children's pronunciations. He asked if it was not as difficult for their pupils to identify with a strange language as with an unfamiliar setting or with characters whose appearance differed from theirs. The idea was rejected promptly and dramatically. To these teachers, a major goal was to help the child overcome the dialect of the slum and the ghetto and acquire a language that would make him acceptable at another social level. Whatever advantages might accrue from the use of dialect would in this situation probably be offset by the attitude of teachers and perhaps of parents who view language as evidence of improved social status.

I have mentioned only a few of the most familiar and more obvious developments in beginning reading instruction. As I suggested earlier, we are often confused as some appear to be in conflict. If the child's spoken language is of prime importance, should his first reading experiences be with scientifically patterned sequences, strange context, and rather pointless discourse? Many critics have said that the child's progress has been shackled by vocabulary control. Are we in danger of substituting a new kind of control that will prove equally stultifying? Must we provide situations and characters with which the child can identify as many sociologists and psychologists suggest? If so, are animals or cartoon-like characters our best choice? Must reading bear the added burden of presenting an overview of American culture? Or is this aspect secondary to learning to read? How soon should children learn to read and how much time should be spent in reading? What are our goals?

Looking Ahead

As the editor looks at both children's language and linguistics, he sees tremendous possibilities for change in materials of instruction. Indeed he sees that change is already here. But he continues to ask questions. How fast will we go, and what directions should we take? Are we perhaps moving toward a number of quite different types of reading programs and materials? Scholars obviously are in disagreement and are recommending varied approaches. Are some better adapted to the children who come to school with considerable sophistication in language and literature and others more suitable for those who may never have owned a book or heard a story read aloud? Shall we change our expectations for the achievement of young children? What final goals can we set?

More than twenty years ago I first heard the story, told then in dialect, of the stranger who stopped at a country crossroads to ask a Pennsylvania Dutch farmer how to get to Chambersburg. Yes, the farmer could tell the way. He tried one set of directions, then another, and another. Finally he said a mild oath and added, "You can't get from here to Chambersburg." Sometimes I feel the same about reading. I start out along the spelling-pattern route, with strict attention to regular phoneme-grapheme relationships. Then I try language experiences and discover that I need to know about language development. I investigate programing and individualization. Then I worry about the disadvantaged slum child and also the child of the suburbs. For a moment, I too say you can't get to Chambersburg. Perhaps the time has come to build a fine new throughway with many entering sideroads or "branches"—a great route which combines the best of what we know about language and learning to bring us to our destination of reading success for every child.

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B3. PUTTING LINGUISTICS TO WORK

1. Linguistics and the Teaching of Junior High School Reading

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TEACHERS of English suffer from perennial anxiety, because they are unable to accomplish with all of their students everything which they would like to achieve, and which society would have them achieve. In the early secondary schools, we should like to make every student a competent reader and we should like also to influence him to read for pleasure and to develop good taste and sensitivity to literature. The English curriculum is as broad as the culture of man; reading is only a part of it; the goals in reading cannot be fully reached.

Can linguistics help the teacher and the student to deal with this dilemma? Our answer, like the field of English itself, must be broad; our acquiescence hopeful but qualified. A study of the science of language—if, indeed there is such a systematic science—should help the teacher to know more about what he is teaching. To the student, linguistic science would be helpful if it were a clearly defined body of rules and facts, and if the student were intellectually capable of mastering and applying it within a reasonable time.

I have not been convinced through lectures by the advocates of descriptive and structural linguistics and transformational grammar nor by books and articles in the field that the conditions above have been met. It is a great temptation, therefore, to say, "Come and offer us help when you have reached some agreement about the facts and the rules." Of course you and I will not do this. We are disturbed and curious; we read and listen, because we also know how complicated and splendid is our English language, and how very hard it is to teach students to use and understand it reasonably well. We come from our sessions with the scientists of language stimulated and eager to do better. Moreover, the linguistic scientists force us to look at basic causes and processes. They ask questions although they do not always provide answers upon which they all agree.

What is useful for us to know in linguistics? Everything will be useful to us as cultivated and curious people. What will be useful to the pupils? We must try things out and help ourselves to discover what will be significant and useful to pupils of various kinds and levels of competence. The linguists remind us that written language is a symbolism of a symbolism; silent thoughts come first, and the human creature tries to express them through the symbols of speech. This symbolism is not precise. James E. Devine *(4)* suggests that, "Meanings and the sounds that represent their meanings are far from simple matters. Unfortunately, meanings of words are elusive and ever-shifting. Around every word there is a fringe of meanings." Thus, the first oral effort at communication is difficult and inexact. It is well for us to be reminded of this, both in our attempt to communicate with our students and to receive their efforts at communication. Written language is an attempt to record speech, using an entirely new set of symbols for what is already symbolic, in order to extend the audience of the speaker, and to store up facts and ideas for listeners far away in time and space. Perhaps the most important contribution of descriptive linguistics is the reminder that all aspects of the language acts are closely related—speech, listening, thinking, reading, writing.

A practical outcome of such a reminder might be to make us ask ourselves whether we sometimes overemphasize silent reading, whether we sometimes neglect the opportunity that reading aloud would provide for appealing to that first symbolic skill which the infant learned, and which our teen-aged pupils love to practice above all other activities. The teacher, at least, should find it profitable to study and analyze the signals provided in oral language which the punctuation of written language so meagerly simulates. Sutherland *(10)* speaks of four degrees of stress (primary, secondary, tertiary, and weak); of infinite variations in pitch; and of junctures or pauses between words (transitional, fading, rising, and sustentional).

Most successful teachers present a new poem to a class by reading it aloud. If we read aloud well—and we should all read aloud very well indeed—we can help the class to understand the meaning of the poem by the use of the techniques which Sutherland lists. Variations in volume, richness, and emotional color of the voice are also essential. In teaching Browning's "Memorabilia," for instance, effective techniques of reading aloud should be very useful in establishing the simple meaning of the work. Intensive discussion after the reading will help pupils to discover deeper meanings. Only God and Robert Browning, perhaps, fully know the secret in the poet's heart.

Memorabilia

Ah, did you once see Shelley plain,
And did he stop and speak to you?
And did you speak to him again?
How strange it seems, and new!
But you were living before that,
And you are living after,
And the memory I started at—
My starting moves your laughter!
I crossed a moor, with a name of its own
And a use in the world no doubt,
Yet a hand's-breadth of its shines alone
'Mid the blank miles round about:
For there I picked up on the heather
And there I put inside my breast
A moulted feather, an eagle-feather—
Well, I forget the rest.

Robert Browning

To a lover of Browning, this is a deeply moving poem, full of the passionate loyalty of the young poet to the memory of the romantic rebel, full of his astonished contempt for the fortunate man who had actually seen Shelley without appreciating his extraordinary experience. The poem should appeal to young readers who are at an age when hero worship accompanied by scorn for insensitivity is a common sentiment. Nevertheless, without containing one difficult word, "Memorabilia" is a most difficult poem, full of compression, elisions, and half-stated implications. To what extent is our study of linguistics useful to us in teaching it? In helping pupils to see what is left out, and actually to follow the simple meaning, Sutherland's structural linguistics may be useful.

(1) Transitional juncture (slight pause between words) (+)
(2) Fading junctive (end of statement) (↓)
(3) Rising juncture (beginning of sentence) (↑)
(4) Sustentional juncture (pause after prolonged syllable) (→)

The symbols ∧ ∨ ⁄ and ∖ are used for the various degrees of stress.

"Ah, → did + you + once → see + Shelley + plain (↑)

So I have interpreted Sutherland's marking system of stress and junctures. Dr. Sutherland may disagree, and you, too, may feel that stresses and pauses should be made differently. The great pause in the poem—the point between stanzas two and three where Browning moves into the magnificent metaphor of the eagle's feather found on the moor—needs a very special symbol, I think. And how would we mark the bitter revulsion implied in the angry pause between the last two lines—

"A moulted feather, an eagle's feather—
Well, I forget the rest."

I have worried this small example of the use of structural linguistics because it illustrates one of the major points I am offering for your consideration. Linguistics is not, as yet, an exact scientific system. We should not all agree on the scoring of stress and junctures in this poem. Nor would we agree on the pitch, pace, and variety in volume necessary for the most effective oral interpretation. (Nor, of course, would we agree on what Browning really means, for poetry, like painting and music, is subject to a variety of interpretations.) However, I believe that the *study* of these matters is useful because it directs our attention to the need for careful preparation before we read aloud. If scoring a poem will help a teacher, particularly a teacher inexperienced or insecure about reading aloud, he should try it. Will such a scoring system be useful to pupils? I should like to try it with some pupils, certainly. It might be just the device to lead some of them to give attention to improving their understanding of what they read, as they strive to read aloud effectively. It could also be used, perhaps, to help boys and girls to give attention to improving the effectiveness of their speech.

"Memorabilia" requires and deserves further analysis. The semantics aspects of linguistics should be helpful in discussing, for instance, how the word *plain* is used in the first line. The misunderstanding between the poet and his companion is an excellent example of the difficulty of communication referred to *(4)*. Stanza two, with its compression and sudden change of mood requires analysis and thought. This brings us to sentence analysis, and to grammar.

The question of grammar, whether descriptive, structural, or transformational, is one before which I quail, lacking the arrogance and certainties of the various advocates of each system. I must confess to a certain pleasure in the study and use of traditional grammar, whatever its inadequacies. One of my favorite reference books over the years has been Long's lucid and fascinating *College Grammar*. Traditional grammar, of course, has been the focus of attack by the linguists from the beginning. "The principles, the procedures, the definitions of formal grammar are unsound," says Fries *(5)*. At the time when descriptive linguistics was in the ascendency, we got the impression that any analysis was useless. The study of formal grammar, indeed, has declined so sharply in New York during the past twenty years that very few young teachers of English nowadays have training in any grammatical system.

However, the structural and transformational grammarians have begun to reemphasize the importance of analysis of sentences and words. Some of them are beginning to see certain merits even in traditional grammar *(3)*. The recent publications of Paul Roberts *(8)* introduce a well worked out system of grammar, with a number of sentence patterns devised from the transformation of a simple basic pattern. Roberts uses some of the terms of traditional grammar, and adds some useful modifications. It will be interesting to see how successful his new English series, designed for use in the elementary grades, will be in giving pupils a sound grasp of language.

There still seem to be gaps between the teacher of literature and reading, and some of the linguists. In an article in College English in October 1960, Paul Roberts said, "It may be that . . . those whose major professional commitment is aesthetic can find no common ground with those whose commitment is scientific." In the introduction to his new series *(8)* Roberts uses poetry as the basis of his instruction in language analysis. His purpose, however, does not include the aesthetic. In discussing reading instruction he says,

> The teacher should settle for nothing less than an accurate report on what is written there. What is the verb? What is the subject and what the object? How are they doing whatever it is they are doing? It is to be noted particularly that this series takes the point of view that

> the child's attitude toward the prose and poetry is his private affair. . . . It is a reasonable assumption that at least a large proportion of children will appreciate good literature if they understand it, and, conversely, that they haven't much hope of appreciating it if they don't understand it. But appreciation is in some sense a private matter, between the individual and the poem.

Here, the teacher of English will, I believe, differ from the aloof attitude of the linguistics scientist. While we know that we cannot always succeed in getting pupils to love good reading, we want, I think, to try to do so. Motivation and enthusiasm in presentation will be as important to us as clarity. We will hope that as many pupils as possible will respond emotionally as well as understand the content. It happens rather often that some linguists refuse responsibility for the functions that teachers of reading and literature regard as important. To this degree linguistics science is not useful to us. However, there is great variety in attitude. Few linguists go as far as this: "The linguist is concerned with structure, not meaning and thought"*(9)*. Just how one can separate structure from meaning and thought may well puzzle us, since one supposes language exists only for communicating those elements.

There remains the question as to whether the new approaches to grammar will be more useful than traditional grammar was in helping children to read more effectively. In order to be completely logical one should first ask, "Which linguistics system of grammar?" In a recent speech *(3)* Chomsky is quoted as saying,

> Which grammar shall we teach? We should teach a generative grammar, a system of rules determining the relationship of deep and surface meanings; which generative grammar should we teach? Whichever one is correct. . . . Grammar should not be taught in schools as a closed and finished system. How little we really know about the properties of language should be recognized by students, as well as by teachers.

This advice is rather hard to follow, on the junior high school level. Surely we should teach some system before we encourage too much skepticism. Without attempting to settle this enigma, I am inclined to believe that for some students at least some syntactical analysis is useful in improving understanding. To return to "Memorabilia," it would help the pupils to grasp the poet's basic meaning if they could be led to see that stanza number two deals with four basic ideas. (I agree with the linguists that the abandonment of the old definition of a sentence as one complete thought is sensible.)

"But you were living before that (1)
  And you are living after (2)
And the memory I started at (3)
  My starting moves your laughter" (4)

The sentence is compound, with a relationship among the various parts which may be made clearer by analysis. It is even interesting to note that, strictly speaking, this is not a conventionally "correct" sentence, that the subject of the final line has an indefinite antecedent. If grammatical analysis is properly done, it should contribute to understanding, even if students do not completely master grammatical theory. Discussion, if it is stimulating, should contribute to understanding.

Analysis of the two final stanzas, punctuated as a single sentence, is certainly not easy, whatever grammatical system is used.

I crossed a moor, with a name of its own
  And a use in the world no doubt,
Yet a hand's-breadth of its shines alone
  'Mid the blank miles round about:
For there I picked up on the heather
  And there I put inside my breast
A moulted feather, an eagle-feather—
  Well, I forget the rest.

Pupils must, in any case understand that lines eight to fifteen constitute a metaphor, whether or not the teacher chooses to use the technical term. That the sentence is complex, with two subordinate clauses, and several minor compound constructions, is worth observing. Indeed, it is essential to analyze all of this in one way or another. Grammar, whether traditional, descriptive, structural, or transformational has a necessary contribution to the understanding of language. The fact that none of these systems covers all contingencies should not prevent us from employing them to the degree that they are useful.

It remains a fact, however, that many

pupils—and many educated adults—dislike grammatical analysis and find it to be of little use in developing skill in speaking, reading, and writing. We are all familiar with the successful student of grammar who fails to put the rules into practice. There are, of course, many masters of speech and prose who do not know a morpheme from a phoneme, a determiner from a noun. Speech and writing are aspects of an art form, which can be mastered intuitively. There are pupils who will read "Memorabilia" and grasp it intuitively. Others will profit from analysis. Others will grasp meanings and implications after adroit questions by the teacher. As teachers of reading and of all the aspects of the language arts that necessarily must be taught in connection with reading, we shall, however, want to know as much about the science of language as possible. We have arts of our own, aesthetic and emotional, which we shall continue to practice. As for our pupils, we ought, I think, to try out some of the linguistic approaches to see whether they are of use. As the eclectic approach remains the best system yet devised in teaching primary reading, so we may surmise that a variety of approaches, scientific as well as intuitive and experiential, is appropriate to the teaching of reading in the early secondary school.

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2. Application of Synchronous Linguistics to Reading: A Theory

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Some Definitions

SYNCHRONOUS linguistics is merely a fancy term for indicating a contrastive comparative approach, i.e., teaching linguistic elements simultaneously and relatively. The simultaneity and relatedness are key factors. Perhaps talking about synchronous linguistics is inappropriate without first defining it in the spectrum of reading applications.

In either a linguistic or traditional setting the sight word has a role to play. The types of sight words will vary, depending on the rationale employed. Following the sight word—or currently—a *word-pattern* system is introduced which includes attention to morphology or word-building schemes. As a word-pattern system is being revealed to youngsters, there should be parallel and sequential exposure to *syntactic patterns.* The basic pattern concept is incomplete without the dimension of mutations or transformations of sentences.

In dealing with sentence mutations—negative, passive, or whatever—there are structural and semantic changes; yet, a core of syntax is shared by all the variants in a group. And it would be highly arbitrary to select any of the sentence types as the starting point, much as it would be impossible to choose any merry-go-round horse as the first one in line. This concept is not proposed to create transformational trauma; rather, it is intended to suggest a design based on a closed semantic syntactic circle. If such an approach has merit—and from the language learning-producing process it seems to qualify—then transformations or mutations and synchronism are related but discrete. We might add that mutations include sentences in which there is a minor structural rearrangement or one in which there is a semantic shift as a result of a phonological alteration. With such a rationale for sentence modification, synchronism yields a psycholinguistic frame of reference. Learning must take place synchronously within the experience pattern of the individual who operates selectively within his own closed circle.

Sentence meaning and structure are not usually considered simultaneously in building reading programs. The relationship between and among sentences can be exposed only if attention is focused on the sentence as soon as possible, i.e., the sentence as a totality of meaning and structure. When such competence is achieved, then the phenomenon of paragraphs or larger-unit reading is attained. Structural semantics is the name often given to the discipline which defines hand-holding between and among sentences.

What, then, should be the basic steps in reading programs? Such elements probably should include sight words, word patterns, sentence patterns, transformations/mutations, and structural semantics. This ladder may seem to reach the top floor, but other considerations are also significant.

Now, let's take a close look at the interplay between the basic chunks indicated above and the areas of *semantics, phonology,* and *sociology.* We shall call these concept-areas *minor universals.* These universals have relevance primarily, of course, at the sentence/utterance level and beyond. Words, too, can qualify individually under certain circumstances. Synchronism, the major universal, is the conceptual tool which actually determines the balance and functioning of the minor universals in juxtaposition with the basic reading steps. Whether the child is decoding a single word, sentence, or paragraph, he must come to grips with a syndrome of these universals operating under the psycholinguistic aura of synchronism. Maturational levels can be accommodated within this scheme.

Theoretical discourses are necessary, but a homely example will often poke a finger of light through the murk. Consider, for a moment, the case of the tardy teacher. She has arrived at her room fifteen minutes late for ten days running; standing at the door to meet her is the principal who has been holding the fort. "My car had a flat tire," she pants, trying desperately to feign a this-is-one-of-those things-that-can-happen-to-anyone attitude.

"So-o-o-o-o," exclaims the principal, thereby eroding—like a wave to a sandcastle—whatever poise the teacher had been able to muster. On the other hand, suppose the same teacher has indicated to the same principal that she has just been given a special award. How would the principal's "comment" be uttered (read) in each instance?

Note the semantic, phonological, and sociological warp and woof which transcends or at least becomes part of the mechanistic word- and sentence-recognition levels. Certainly it would be impossible to splinter the combined effect, for the elements have been skillfully blended in the proper balance of a single perception. Translated into a child's terms, the teacher could ask, "How does mother call your name when she is happy with you?" and "How does she call your name when you are very late for dinner?" It is obvious that the universals are significant in the reading process; they are not unique to any particular level.

Comparisons and contrasts, by design or coincidence, will be inevitably manifested, but it would be unfortunate to fracture a program in order to draw attention to each and every facet. Reading must represent a total activity to the child. A closer look at synchronism should help.

Synchronism: Levels

Synchronous functioning will always be involved whether a child is interacting with semantics, phonology, or sociology. Again, it must be emphasized that these are not discrete pieces, for they are inextricably interwoven from the user's (reader's) point of view.

Examples of synchronous functioning have been provided in an utterance context, but more attention should be given to this level. Knowing and anticipating structures should help a child become a more efficient reader. "Subjectness" is simple to handle synchronously in what seems to be basic substitution, yet the reading steps and universals must inevitably come into play. By substituting *He,* or any other suitable word, for *Jack and Jill* in *Jack and Jill went up the hill,* it is clear that we are dealing with word patterns, sentence mutation, meaning, and sound. It can also be argued that sociology is involved.

Word contrasts/comparisons have been built into many reading programs, but a complementary effort at the sentence or phrase level seems to be lacking. Materials must be structured to provide this kind of conditioning, and methodology must define ways of supporting synchronism systematically. Repetition of significant elements in this approach should be as relevant as the time-honored reinforcement of vocabulary in primary reading books. Predication, clausal groups, and phrases can also be given the treatment. Perhaps the following types of relationships should be defined in reading programs:

> The ugly cat jumped with care.
> The ugly cat jumped carefully.
> The ugly cat jumped with Jill.
> The ugly cat jumped   .

Word patterns can easily be compared and contrasted from a sound/structure perspective: fat, bat; hot, hat; cot, cob. Lack of sentence or utterance context obviously obscures the semantic and sociological differentials. Since children love to play with noises, work with sound/structure could well be enhanced through the systematic use of onomatopoeia and alliteration. Symbols ought to leap from the page and attack the ear as well as the eye; special exercises could easily be incorporated so that the buzz-of-a-bee, tinkle-of-a-bell and scream-of-the-wind type of experience would be made available to youngsters. Picture clues could elicit sounds of pain, crying, and laughing so that there would be total involvement—not passivity—on the part of the child.

High- and low-pitch contrasts and comparisons can complement efforts to make pupils aware of the distinction between loudness and softness. And kinesics, the language of movement, can offer suitable accompaniment. Have a child make the sound of a surly dog, a happy puppy; have children "hang loose" so that they can mesh with language. The significance of the wandering primary stress is a useful tool:

> Don't stick *me* with your pencil.
> (It's all right to stick John)
> Don't stick me with your *pencil.*
> (I'd prefer to be stuck with a pin)

People are programmed for language. Note how easy it is to fall into ritual selection: hat and   , sun and   , dog and   ,   and jelly. And consider how we are focussed when we use certain connective signals: I wanted to go but . . ., or He took the car because. . . . We have freedom within limits.

The application of synchronism to sociology would result in a truly multicultural approach, one which would preclude sterile "brown-crayon" treatment. Cultural contrasts can be drawn among various societies, and world views can be considered—the ways in which realities may be similar or dissimilar.

The Residual

There are various possibilities in the application of synchronism to reading; the basic reading steps are overlapping and yet parallel to some extent. Complementing these stages are the minor universals: semantics, phonology, and sociology. Synchronism is the major universal, a conceptual amalgam which has been intuited by educators. It is the glue which holds the various pieces together in the process we call reading. Unfortunately, it has not generally been apparent in text materials—except in incidental ways. Although this brief statement does not allow full exploration of synchronism, the following chart will suggest the relationships:

III Major Universal
Synchronism

I *Basic Reading Stages* ↔ II *Minor Universals*

I *Basic Reading Stages*
- *Sight word*
- Word pattern
- Sentence pattern
- Mutations/transformations
- Structural semantics

II *Minor Universals*
- Semantics
- Phonology
- Sociology

Synchronism, then, is the *systematic contrast/comparison built into* a language program; it is the general designation attributed to a *perceptual phenomenon* and one which reflects *unique packaging by the individual*. To achieve an effective level of synchronous linguistics, materials must be written with these goals in mind, and teachers must utilize appropriate methodology. Perceptive application of this technique should improve the reading power of children.

C. READING PROBLEMS DUE TO ENVIRONMENTAL INFLUENCES

C1. READING PROGRAMS FOR CHILDREN WITHOUT

1. A Perspective on Reading for Children Without

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VICE-PRESIDENT HUBERT HUMPHREY has estimated that from a fourth to a third of all our children are growing up in poverty. For the benefit of those millions of children, the IRA has published a bulletin for teachers entitled *Reading for Children Without – Disadvantaged Youth*. This bulletin describes the effective teaching of youngsters from homes of poverty and illiteracy. The bulletin is concerned with the preschool through the high-school years.

The results of deprivation are well known: In comparison with middle-class children, children from disadvantaged backgrounds suffer more physical handicaps—more eye defects, more hearing losses, more diseases, more malnutrition—and more neurological problems. Disadvantaged six-year-olds come to school without readiness to cope with academic tasks; their language powers are underdeveloped; their auditory- and visual-discrimination skills are relatively poor; their concepts are few and rudimentary. It has been estimated that by the time these children reach grade six they are retarded an average of two years and about by grade eight, three years. Most of them become dropouts before completing high school.

The goal of the bulletin mentioned is to demonstrate how to change "children without" into "children with." Here I will stress three basic considerations in making such a transformation.

First, a good reading program, as important as it is, is not enough to overcome the harsh effects of homes of illiteracy and poverty. Before intellectual retardation can be reduced, physical and neurological handicaps must be removed insofar as possible. The hundreds of disabilities of these children need to be identified, diagnosed, and alleviated. For this purpose schools must diligently seek specialized services such as those of psychologists, nurses, doctors, dentists, neurologists, social workers, and home economists. When serious physical and emotional deficiencies are neglected, reading instruction is usually wasted effort.

Second, the problem of children without is a community problem. Can we hope to transform the children when they spend only about five hours a day in school and then return to the same old environment? The answer is a qualified "No." Some good can be done but not so much as if home conditions were improved. For this reason, we must seek the active involvement and participation of the parents.

For example, in the neighborhood school of a Grand Rapids ghetto, 80 per cent of Raymond Tardy's sixth-grade pupils were two years or more retarded in reading. However, Tardy did not begin his campaign of improvement with the children because he knew that their achievement in school was not a concern of the parents. He thought that if the adults improved their own self-concepts by learning to read, their expectancies for their children would be raised; and the children would become motivated and respond better to his instruction.

Tardy challenged the illiterate parents to come to school and "improve" their reading. After the class had met several evenings, he asked each person to bring another. He furnished pencils, paper, and transportation and provided care for preschool children while the adults attended class. Anyone could leave the class when he wanted to. But Tardy and the volunteer reading consultants made the class periods so interesting that no one did.

So effective was this program that "school" became a popular word throughout the community. Children had new respect for their parents who were learning to read and became proud that they could now assume a role in the community. The classes taught the parents that welfare is no longer a way of life; further, that their children must be educated to take part in the world of work.

Tardy's advice is "Get to the adults first. Get them to react in favor of school, and then the students will."

Other methods useful in raising parents' aspirations include these:

1. Have qualified parents serve as teacher aids working with young children. The aides can read to children, tell stories, operate audio-visual equipment, do clerical work, and prepare art, music, and other classroom materials.
2. Have regular teachers serve as instructors for bimonthly adult classes designed to help parents teach their own children. The teacher demonstrates materials and techniques and emphasizes their educational uses. He offers suggestions for using commonplace items in the home for education (e.g., clock, calendar, seeds, tea kettle emitting steam, captions on canned goods).
3. Encourage parents to go to public libraries to obtain books for themselves and their children.

As the parent's educational background is extended, he will spend more time with his children. There will be more conversational exchange and interaction, and this change will be reflected in what the child learns as well as in his attitude toward learning.

Third, compensatory education for a child demands a much longer commitment than most of us have realized. Professional literature is replete with descriptions of preschool and first-grade programs. The number of publications for more advanced grades is not nearly so large.

Certainly we can expect the early childhood programs to produce measurable improvements in reading and a raise in intelligence-test scores. But what will happen when the children reach higher grades?

No short period of good beginning instruction will insure lasting success. Such instruction cannot offset all the serious effects of poverty during earlier years. As Ivor Kraft says it "can never substitute for the broad range of healthful, normative home and family experiences of small children."* With low-quality programs above first grade, the results of the best early-childhood instruction will gradually be "washed out."

Actually what we need is "massive expenditures and profound efforts at innovating"* from preschool through high school.

2. Guiding New Teachers in Secondary School Reading Instruction for "Children Without"

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The Two Dimensions of the Program

IN DESIGNING programs of reading instruction for disadvantaged youth, we are faced with the dual task of instructing not only the under-achieving readers but also their incompletely prepared beginning teachers.

The problem of providing concurrent training for both pupils and teachers in secondary schools is a mighty one for supervisors who frequently feel forced to resort to slavish adherence to specific courses of study in reading (where they exist) or to laissez-faire utilization of the newest book, pre-packaged materials, or automated devices. All of these approaches are deficient to the degree that they ignore the specific needs of pupils and the professional potential of teachers.

Over a period of three years' work with disadvantaged adolescents on The

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*Ivor Kraft, "Are We Overselling the Pre-School Idea," *Saturday Review*, December 13, 1965, 63.

BRIDGE Project,[1] three beginning teachers (of English, social studies, and mathematics and science) gained gratifying competence in providing meaningful reading instruction. A brief review of these experiences may prove helpful to other teachers and supervisors faced with the problems of improving the reading abilities of culturally different youth in secondary schools.

Assessing Pupil Needs

From the outset, the reading program was devised by the teachers themselves with the leadership and guidance of the coordinator as a resource person in reading. In order to estimate the extent of their task, the teachers were assisted in diagnosing pupil needs. Frequency distributions of standardized achievement-test scores revealed a picture of appropriate levels for whole-class instruction. Item analyses of test responses yielded profiles of pupil needs for skills training which guided organization for small group or individual work. In determining specific lacks within given areas or skills, the teachers were helped greatly by informal instruments found in various published materials, and they soon learned to devise measures of their own to meet special situations. By observing the coordinator at work with low-achieving readers, the teachers learned to administer the informal textbook inventory. The skills they gained here proved useful not only in this oral diagnosis but also in sharpening their aural observation of pupil-reading performance in the classroom.

Designing and Implementing a Reading-Skills Program

Armed with these diagnostic blueprints, the teachers and the coordinator were able to assess the dimensions of their undertaking. Having defined the problem, they found it was now possible to outline reasonably exact approaches to its solution.

In group conferences, the four staff members designed a tentative sequence of reading-skills instruction, one semester at a time. In subsequent weekly conferences, the effectiveness of the preceding lessons was evaluated by all the teachers and modifications were made in the projections for future teaching.

The changing patterns of assistance offered by the coordinator reflected the teachers' growing capabilities. During the first year, the teachers progressed from initial imitation of demonstration lessons to utilization of detailed sample lesson plans, thence to adaptation of these plans, and finally to composition of original instructional approaches. During the second and third years, the coordinator provided guidance through the preparation of Reading Instructional Resource Sheets for each topic of emphasis in the reading program. These noted for the teachers the related materials available in the school:

TOPIC:

(Specific statement of skill to be taught.)

RESOURCES:

Teacher References:

(Titles and page numbers of professional books in the curriculum library which would provide foundational understandings for the teacher.)

Audio-visual Materials:

(Films, filmstrips, recordings, flat pictures, and transparencies to vitalize learning experiences.)

Text Materials:

(Chapter or section references in reading-improvement books or content-area texts suitable for introductory teaching of the specific skill.)

Practice Materials:

(Exercises in practice books to be adapted to exact needs for drill to fix learnings.)

PRACTICAL APPLICATION:

(Notation of activities suggested in conference by each teacher to provide for transfer of reading skills to the various content areas.)

In conference, the teacher of developmental reading (this assignment varied each year) presented to his colleagues his planned activities based on the resource sheet, and they noted ways in which they could implement and reinforce instruction in their own disciplines. When possible, the teachers gathered to observe a reading lesson being taught so that they could capitalize on the experience to the fullest in their respective classrooms.

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[1] Gertrude L. Downing, Robert W. Edgar, Albert J. Harris, Leonard Kornberg, Helen F. Storen. *The Preparation of Teachers for Schools in Culturally Deprived Neighborhoods (The BRIDGE Project)*, Cooperative Research Project No. 935, Flushing, New York: Queens College, 1965.

Values in Teacher Training

In evaluating the effects of the program on their professional growth, the teachers identified certain advantages:

The instructional sequence was evolved to meet the specific needs not only of the pupils but also of the teachers.

The program was meaningful because it was developed through cooperative effort of all concerned with instruction.

The teachers learned how to teach reading effectively by "discovering and doing." Background reading, observation of instructional films, selection of practice materials and group discussion of lesson plans enabled the instructors to learn while they taught.

At the conclusion of the project, one of the teachers remarked ruefully, "If I'd known about reading skills then what I know now, college work would have been much easier for me."

3. Practical Activities for Classroom Teachers—Grades 4 through 6

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Who Are The Children Without?

WE KNOW that a large number of children coming from deprived areas have difficulty learning to read. The reason is obvious. These children come to school denied the varied learning experiences which help them master the reading task—denied by poverty, by the indifferent attitudes of parents, by the lack of books within the home, by the lack of attention given to speech patterns, by the lack of oral communications among members of the family, by the lack of motivation for achievement in the environment, and by the lack of a good feeling of personal worth. They may never have had the opportunity to listen carefully to directions, to ask questions, to express ideas, or to explore the outside world beyond their neighborhood.

These children usually live in substandard and crowded homes with little opportunity to play, read, and study. They have short attention spans. Health is often neglected. These are the children without, who by the time they reach the middle grades have acquired an indifferent attitude towards school, towards success, towards goals for the future.

Raise the Pupil's Self-Image and Promote Self-Confidence

For children to be taught to read they must want to learn. If teachers believe that children without can learn and show this belief, then the ability and the desire to learn become enhanced. It is the role of the teacher to develop a favorable self-image and reasonable academic aspirations in the child. Since the children without generally come from homes without — without experiences, without academic motivation, without tools, without educational stimulation—they are dependent upon the teacher for self-esteem, stimulation, and encouragement. Teachers need to provide opportunities to build on the strengths of these children in order that they may gain needed self-confidence.

The communication skills of listening, speaking, reading, and writing are vital needs of children without. Success in learning to read depends upon the mastery of these skills. The school needs to take a critical look at the special teaching methods and materials that are provided for these children.

Oral Language

Children from disadvantaged homes are really not verbally destitute. They differ in complexity of language from children who come from more favored language backgrounds. But they are not as languageless as we once thought. Middle-grade children are quite articulate in conversation with their peers. They can sing the latest rock and roll hits, talk out with the beatniks, and play out "007." The question is asked, "What kind of stimuli do they respond to verbally?" They are often surprisingly articulate in role-playing situations. Given a chance, they will tell us what they have come to believe about others and how to get along with them; what the world is like, both that which they know best and that which is strange and unfamiliar; and what is really important to themselves and others.

If children are to master the basic language skills of oral expression, they must have a wide range of experiences which include listening to stories read by the teacher; taking field trips to such places as the city hall, the art museum, concerts, plays, and music festivals; using and listening to tape recorders; hearing records; and viewing movies and filmstrips. These activities provide pupils with opportunities for language experience. Time should be given to react to and talk about the things they have seen and heard.

Listening

Listening plays an important part in oral language. The children without are not accustomed to listening. What is more they learned to tune out the continuous street noises and the bickering in the home; in turn, they can tune out verbal situations in the classroom. Successful teachers use a wide variety of materials and techniques to help children listen with increased attention. For example, a listening workshop corner in the classroom could be initiated. Through records and tape recordings of children's stories, youngsters can learn to listen attentively. Within the classroom, teachers use music and rhythm in developing certain activities. Children without love rhythm. Poetry has rhythm and rhythm is released movement. A snowstorm, a rainy day, fireflies can be translated into feelings that these children cannot yet express.

Reading

Ability to read is basic to learning. It is also complex. It requires a knowledge of why reading takes place and motivation to read. Children without have little opportunity to develop either. Since reading competency is roughly commensurate with one's experience, the children without can be expected to do very little effective reading in textbooks they often are asked to read.

Curriculum materials and methods should be carefully examined. Such innovations as programed instruction can be geared to the thinking of the disadvantaged child. He proceeds at his own rate and is not competing directly with other children. Teaching machines can also be used effectively if appropriate programs are available. The mechanical appeal of such a device is likely to have a special appeal for the child who is physically oriented.

Special materials and techniques should be developed for those children for whom standard English is a second language. These language-impoverished children have great difficulty in the middle grades when the social studies and science texts are above their comprehension of language meanings. Try rewriting the material in the language and sentence structure that they can understand.

The children without, nurtured on television, are moved by drama. They learn through neon signs and billboards. They have interests whether it be Batman of the famed TV serial, the Beatles, or the new-styled drag car. The experience approach is a good beginning for effective reading. The pupil's oral production, written down, supplies the beginning-reading materials that help to build a basic-reading vocabulary. What is more, children can read more fluently what they have written. Stories bound in notebooks can be displayed on the library table for other children to read.

This year more multi-ethnic materials have appeared on the market for the urban deprived child which offer to the child a positive image of himself. Children can identify themselves more easily with the story, characters, and settings related to the world he knows. The result —greater interest in reading.

Read, read, and read some more. Teach children how to read, excite their interests in reading, and stimulate them to lifelong habits of using books. Classroom and school libraries are strong assets. They provide opportunities for children to browse, to derive meaning from pictures, and to hear a story read and to share books through informal activities. One way to bring children and books together is a book fair or book club. A new era in education has been launched by the success of the paperback. Its advantage in economy gives the child an opportunity to own personal books. This ownership may be the very first step along the road to lifetime-reading habits.

Helping the children without means providing practical activities for reading situations through the use of methods and materials suited to their interests and needs.

C2. CHARACTERISTICS OF CULTURALLY DEPRIVED

1. Socio-Economic Differences in Reading Interests

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TODAY, through mounting concern for the culturally different, there are many more generalizations being made about the deprived than specifics about them.

Society's culturally disadvantaged child is in danger of becoming a "cause"—a "cause" without unique personality, without distinguishing warmth, without individuality. A "cause" can become so generalized that it becomes abstract. So abstract, in fact, that when the educator meets a living-breathing part of that cause, recognition may fail to take place. This omission must not happen, for in education lies the real hope for a better world.

"I wish they knew how it feels being me," (a plea from a ninth-grade Negro boy who lives every day of his life in a poverty few of us could endure) says very well the reason for this research study.

We need much more personal information about the reading abilities, habits, and interests of this significant group. Marjorie Smiley has pointed out that despite extensive studies of sex- and age-related reading interests, almost nothing is known about the relation of these interests to children's social-class origins *(1)*.

In planning our research, it appeared appropriate for us to seek information in response to the following question about reading interests: What are the types of stories preferred by disadvantaged boys and girls at different grade levels?

Because reading interests often develop from general interests learned through environmental influences, the following questions were also included:

1. What are the major free-time activities of the deprived youngster?
2. What are the favorite television programs of the deprived, and what is the relationship between these programs and reading interests?
3. What are some of their attitudes and expressed wishes toward their parents?
4. To what types of careers do these youngsters aspire?

Research Procedure

In the late spring of 1965 two interest inventories were developed by the researchers: one for grades one through three and the second for grades four through twelve. These two inventories were administered by the faculty of a Negro school with an enrollment of 1600 disadvantaged students in grades one through twelve in one of the parishes in the New Orleans' metropolitan area. In grades one through three the teachers recorded the students' replies without prompting. In grades four through twelve the students wrote their own responses.

Results

In view of the limited size of the various age and grade groups the following data should be viewed as preliminary and should be subjected to further study.

I. *Story Preference at Different Grade Levels*

In grades one and two, in response to the item "Three Kinds of Stories I Like Read to Me," boys and girls were quite similar in their responses. As first choice, both boys and girls identified, by title, books which the researchers found to be the pupils' basal readers. Both boy and girl first graders ranked animal stories as second choice and make-believe as their third.

Second-grade boys and girls identified make-believe as their second preference with animals as their third choice.

In the third grade, boys and girls begin to evidence different interests. The boys ranked animal stories first, make-believe second, and cowboy stories third. The girls placed make-believe first, animal stories second, and adventure third.

In grades four through twelve the students were asked to mark an "L" in front of the kinds of stories they liked and a "D" in front of the kinds that they disliked. The following categories were offered to them: science, love, how to make things, nature, sports, crime, war, spy, travel, history, murder, romance, adventure, and cowboy.

Preferences evidenced by the different grade levels indicate that after the fourth grade there are major differences in the story preferences of boys and girls with one area of exception: adventure stories ranked high with both boys and girls in grades six through eleven.

Boys in grades four and five preferred cowboy stories first; science second, and war, how to make things, and sports third.

Sixth-grade boys had the following interests: adventure and sports ranked first; cowboy stories, second; and war stories, third.

Girls in grades four and five begin to show greater differences of interest. Fourth-grade girls agreed with the boys on their first choice of cowboy stories; but, fifth-grade girls preferred adventure stories to other types. Ranked second by the girls in both grades were history and how to make things, with agreement on travel as third choice.

Sixth-grade girls rated history as first preferred, with adventure second, and science third.

Seventh- and eighth-grade boys had similar interests and likewise seventh- and eighth-grade girls. Seventh-grade boys ranked cowboy stories first, while eighth-grade boys preferred sports. Boys in both grades, however, ranked war stories second and science third. Seventh- and eighth-grade girls ranked love stories first, (with eighth-grade girls also ranking history first). Second choice for both grades was romance, with adventure stories in third position.

Ninth-grade boys appeared somewhat different in their expressed interest from the grades which preceded and followed them. They tied adventure and history in first place, science and sports in second place, and cowboy stories in third place.

Ninth-grade girls reflected this same difference. They ranked science first, adventure second, and romance and history third.

Tenth-, eleventh-, and twelfth-grade boys were quite similar in reading interests. Boys in all three grades ranked sports first and war stories second; different grades mentioned science, how to make things, history, and adventure for the third position.

Tenth-, eleventh-, and twelfth-grade girls showed more variability of preference. Tenth- and eleventh-grade girls ranked romance first. Twelfth-grade girls placed romance in second place. Tenth and twelfth graders also ranked love stories in first place with eleventh graders placing love stories third. Holding the second position for tenth-grade girls was adventure with history for the eleventh. Ranked in the third position by tenth graders was history. Eleventh- and twelfth-grade girls agree on ranking nature stories third, with eleventh graders also tying in love stories for the third spot. An overall pattern for the girls in the three grades placed romance and adventure in first place, love in second, and history and nature in third.

It is interesting to note that throughout grades four through twelve for both boys and girls an interest breadth of six categories was manifested.

Ranking the frequency of listing in the top three positions, the story categories were identified in the following preference order: adventure, first; history and science, second; cowboy, war, and sports, third; romance and love, fourth; travel, nature, and how to make things, fifth. Murder stories came into the top three ratings only once (third place by eighth-grade girls). The categories of crime and spy stories were not placed in the top three by either sex or any grade.

II. *Major Free-Time Activities*

A total of forty different activities was listed by the pupils in grades one through twelve. The two most frequently mentioned activities throughout the grades by boys and girls alike were playing ball and watching television. Interest in television became pronounced at grade two. Housework, including such tasks as cleaning, washing clothes, ironing, and sweeping, was frequently mentioned from grades one through eight for both boys and girls, with heaviest emphasis among fourth-grade girls.

The listing of school work as an activity did not appear until grade three but was mentioned equally then by both boys and girls. Fourth-, seventh-, and ninth-grade boys and girls also emphasized school work.

Mentioned with closely matched frequency were the activities of reading, dancing, making clothes, swimming, playing phonograph records, and cooking. Reading became pronounced at grade seven for both boys and girls and continued to be important through grade twelve. Dancing was of great interest to the girls from grade seven on, but the boys did not evidence this interest until grade nine and then always to a lesser degree. Girls in grade seven frequently mentioned making clothes and showed consistent interest in this area throughout the remainder of the grades. Swimming was listed often by both boys and girls in grade six and remained a popular activity through grade twelve. The playing of phonograph records became popular with the eighth-grade girls and continued as a popular pastime for the girls through grade twelve. Throughout the grades girls listed more different things that they liked to do than did the boys.

III. *Favorite Television Programs and Their Relationships with Reading Interests*

The surprising number of ninety-four television programs was identified as favorites by the children in the study. While there was much individual variability, interests tended to cluster around certain types of programs. A transition appears to take place in the upper-elementary and junior high school years. From grade four through eight there is a gradual broadening of interest; from ninth grade through grade twelve there is a narrowing of interest. By categories, ranked in order of preference, grades one through three prefer cartoons, cowboy (Roy Rogers), make-believe (Superman and Hercules), and science fiction. Grades four through six like cartoons, science fiction, movies, and cowboy programs.

Grades seven through nine prefer twist programs (Shindig), movies, science fiction, crime (The Fugitive), cartoons, spy (The Man From UNCLE), soap operas (As The World Turns), and drama (Peyton Place).

Grades ten through twelve watch most often twist programs (Shindig), drama (Peyton Place), crime (The Fugitive), and spy (The Man From UNCLE).

The relationship between television preferences and reading interests is a moderately positive one at the primary level. The television and reading interests of the middle grades are likewise similar; however, as one moves into the junior high school years the positive relationship does not hold. In the final years of schooling, the relationship moves again toward the positive.

IV. *Attitudes and Expressed Wishes Towards Parents*

In response to the open-ended item "I wish my parents knew," students in grades four through twelve offered replies which contained the following major strands of ideas: . . . how I am doing in school; . . . what is going on in the world; . . . how to help me with my school work; . . . how I like to read; . . . knew me and understood me better; and . . . how much I love them.

V. *Occupational Interests*

The students in grades one through twelve identified a total of 118 jobs or occupations which they would like to enter when they have finished school. The occupational aspirations reflected a rather surprising breadth of knowledge about the world. The occupations they listed ranged from car washer to literary critic. The most frequently and consistently named occupation by both boys and girls throughout all of the grades was that of teacher. Following in order of frequency of listing came nurse, doctor, secretary, soldier, scientist, and ball player. Throughout the listings the impression was left that the youngsters had a rather realistic outlook of their future in present-day society. Many replies identified the job and followed it with the comment, "I probably won't make it though." Particularly was this statement true of the professions that society places great value on, such as those of scientist and doctor. Realism was further revealed through the fact that the majority of the youngsters listed teaching. For the Negro in the South teaching has been a realistic goal and status position for many years.

Recommendations

It is, therefore, our recommendation that further research be conducted in this very challenging area of reading interests and environmental experiences of the disadvantaged. Some of the data of this study—such as the reading interests of primary children and the facts that girls expressed wider interests in reading and activities than did the boys and that there is a degree of sophistication about various professions—does not agree with findings in the field regarding other socioeconomic levels. Further consideration might be given also to the disadvantaged in different regions of our country. It is conceivable also that further differences exist even in the disadvantaged.

REFERENCE

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2. The Preschool-Disadvantaged Child

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THE TRULY disadvantaged-preschool child is on a collision course with reading failure in first grade unless something intervenes to prevent this academic disaster. Reading inability among all children is estimated as 15 to 20 percent. Among the disadvantaged children as a group the disability estimate is as high as 50 percent *(8)*, and it is even higher in the case of children from severely impoverished backgrounds.

We are only now beginning to understand the full impact of severe deprivation on the preschool child. We still have much to learn about him and about ways of working with him to compensate for his learning handicaps. A number of well-designed experimental programs is in progress, but to date results from these are either incomplete or inconclusive. We still do not know enough to prescribe with confidence the type of program or programs that will ensure optimum learning opportunities for these young children. At this stage of our knowledge what kind of compensatory educational experiences should we provide for severely disadvantaged preschoolers to improve their chances for success in learning to read?

In this paper I shall attempt to identify the truly disadvantaged child and his specific disadvantages in relation to beginning reading, to describe some of his developmental and learning deficits, and to suggest some guidelines for teachers. Some of what I have to say is based on my experiences as an educational consultant with Project Headstart; some of my observations and suggestions are directly related to experiences I have gained from an exploratory project involving severely disadvantaged pre-schoolers at the University of Illinois.

The Severely Disadvantaged-Preschool Child

Who is the severely disadvantaged-preschool child? He is roughly between the ages of three and five, and he has not yet entered first grade. If he is enrolled in an educational unit other than a day-care center, it is either a nursery school, a pre-kindergarten, or a kindergarten. Chances are, however, that he does not yet attend a school of any kind. He is not merely a poor child; rather, he is a child whose impoverished-family environment has had such an impact upon his early development that he is ill-prepared for either the behavior requirements of the classroom or the demands of the learning process.

There is a good deal of confusion about the descriptive label *disadvantaged* and quite some disagreement about its appropriateness. We seem to have run the gamut in short order from *underprivileged* through *culturally deprived* and *culturally disadvantaged* to just plain *disadvantaged*. This term, too, has its drawbacks; for it is easy to build a case for certain "disadvantaged" middle-class children as well as for those from lower-class families.

The fact is that there are many degrees of disadvantage. It should also be recognized that not all poor children are necessarily disadvantaged. A colleague of mine was born in an oil camp in Texas. His family moved constantly from one oil camp to another. He was fourteen before he and his five younger brothers and sisters first entered school. But he wasn't disadvantaged! According to him he was merely poor at that particular time.

The truly disadvantaged child in my frame of reference comes from a bottom-of-the-range, lower-class poor, multiple-problem family. His deprivations have been many and the impact has been severe. He has inherited poverty. And the enormous significance of his deprivation is that he is being socialized in a "culture of poverty" *(7)* which has already started to retard his cognitive development.

Research has demonstrated that such children have many developmental and learning deficits in common. They score well below their middle-class peers on standardized measures of intelligence; their language development is retarded and of poor quality; auditory and visual-discrimination skills are not well developed; and skills for coping with the expectancies of a teaching-learning situation are almost nonexistent *(2, 6)*.

It would be incorrect, however, to say that there is a disadvantaged preschooler per se. A decided range of differences with respect to the degree of disadvantage exists even at the lower end of the deprivation scale. Moreover, these disadvantaged American children come from different ethnic backgrounds and live in different sections of the country. The Oriental child in California and the Hawaiian child in rural Oahu, the Mexican-American or the Indian child in the Southwest, the Puerto-Rican child in Spanish Harlem, the Negro child in a Chicago slum, and the Caucasian child in Appalachia have different needs and backgrounds. The great challenge is still the challenge of individual differences.

Learning Deficits Related to Pre-Reading Skills

There are a number of basic learnings related to reading which middle-class children acquire during the preschool period and which disadvantaged children fail to acquire. For example, Durkin *(4)* reported that books and "being-read-to" were experienced regularly and with pleasure by the early readers in her research project. Books and being-read-to are unknown quantities in the life of a young disadvantaged child. Because of this fact, he builds neither an understanding of what it means to read nor the desire to learn how.

It is pretty well agreed that we must have a child under attention if we are to teach him to read. Yet, one of the prime characteristics of the disadvantaged child at the preschool level is his notoriously short attention span. Related to this characteristic is the difficulty he has in following the teacher's directions. This child's predominantly physical approach to learning *(3)* may further complicate the problem of getting him involved in reading which, after all, is a fairly sedentary and abstract task.

I do not need to remind teachers that a high level of auditory discrimination is required of the child in the beginning stages of learning to read. Disadvantaged youngsters, however, appear to be surprisingly insensitive to subtle differences in sound. It may be that, living in unadulterated noise, they have learned how *not* to listen *(3)*. The resultant learning deficit is a serious one. It is important that the child be able to distinguish "p" from "b". It is equally important that he be able to listen to and benefit from the language spoken by the teacher.

The young disadvantaged child is a language cripple. He is not, strictly speaking, a non-verbal child; but his verbal inadequacies are such that they present a grave threat to his success in learning to read. This child has not had many experiences with objects and ideas which are familiar to middle-class children. As a result he does not know what these things are or that they have names. Even the simplest pre-primer may present concepts and vocabulary that are altogether unfamiliar.

Add to this the fact that his language is crude and limited, and the prognosis is not too bright.

Basil Bernstein *(1)*, the British sociologist has suggested that the language a child learns shapes and limits the *what* and *how* of his future learning. He describes two modes of verbal communication: *restricted* and *elaborated*. Restricted language is characteristic of the disadvantaged. Sentences are short, simple, often incomplete. It is used primarily for social interchange and is understood easily with a minimum of verbal cues. A kind of "disadvantaged pidgin," this type of communication affords little need for reflection. Elaborated language is more precise. The range of concepts, vocabulary, structural elements, and information is greater. It permits reflection and encourages the cognitive use of language as tools of thought.

Imagine a disadvantaged mother who wants to sweep the floor. Her young son is playing in the exact spot where she wishes to use the broom. She points toward the door and says, "Get out!" He obeys without responding verbally. This is restricted language. Now imagine a middle-class mother in the same situation. She might say, "Darling, Mother wants to sweep here. Would you please play in the other room for a few minutes until I have finished?" Something more must be done about this sentence than just listening to it. According to Hess and Shipman *(5)*, the verbal categoric command, "Get out," cuts off thought; whereas the more elaborated message gives the child a reason for his mother's request. Given a rationale, it may encourage him to *ask* why in another situation. This type of verbal interchange may also encourage the child to learn to look for action sequences in his own behavior and in that of others. This more cognitive use of language is essential to interpretation in reading.

The Illinois Nursery-School Project

Disadvantaged children have much to teach us about themselves. A two-group nursery-school project was initiated at the University of Illinois by Celia B. Stendler and myself on March 1, 1965, BHS—"Before Head Start" — that is, before the maiden summer voyage of the national effort in behalf of deprived four- and five-year-olds. The major purpose of the Illinois project was to gather descriptive data on severely disadvantaged preschoolers at two different age levels and under two different programs and to explore various approaches to parent education at this depressed level.

Both groups were housed in the Child Development Laboratory at the university and met for two and one-half hours five afternoons a week. Both were used as demonstration projects in the training of Head Start personnel.

The major criterion for selection was severe disadvantage. Public welfare officials and principals of schools in the most deprived areas of Champaign-Urbana were contacted for recommendations. It would be difficult to assemble a more bottom-of-the-barrel group of families than the ones we finally recruited. These were truly hard-core poverty cases. Moreover, the principals had nominated those families where there had been other children who had given the school real trouble over the years. To let the university take off some of the rough edges of behavior before this next child arrived on the kindergarten or first-grade doorstep was an obviously inviting temptation. Prayerfully principals made their recommendations, and we selected the most disadvantaged.

The children ranged in age from two and one-half to five years. They were divided into two age groups. Approximately one fourth of the sixteen children in each group was Caucasian, and the rest were Negroes. The older group was subjected to a highly structured situation using Piaget-inspired materials. The younger group was exposed to a more conventional and informal type of nursery-school program. Concrete experiences, concept development, and oral language were emphasized in both groups—individually and informally with the threes, and in small structured groups with the fours. The three-year-olds stayed at the laboratory for almost five months; but the four-year-olds were available to us for only three months.

The first thing we noticed about these children was that they were unable to manage space. Our playrooms are enormous. Unaccustomed to such freedom of movement indoors, they simply used the square footage as they would outdoor space—to exhibit open-field running. We learned shortly to break up this space, to limit the time for "free play" to twenty minutes at first, and to organize for "structured freedom." In this highly structured program for the four-year-olds, attention span was noticeably short and the activity level was very high. These two factors together necessitated a shifting program, versatile teachers, and small-group activities for short periods of time.

Next we learned that more teachers were needed in the four-year group than in the three-year group. A ratio of one teacher to four children appeared to be the most effective arrangement for small-group, direct-teaching activities. In contrast, the less structured, more traditional nursery school functioned well with only three teachers for sixteen children. Teacher personality undoubtedly had some effect on the situation, but it is a difficult variable to assess. Both head teachers were fine, intelligent, dedicated people. From observation, however, the younger children's teacher appeared to be somewhat warmer, more relaxed in her teaching style; and she was better trained to work with young children.

One of our most startling discoveries was the way these children used equipment. They threw everything they could pick up! A hole is to dig; a stick is to throw. A book isn't much different from a stick if you have never seen a book and you don't know what it is for or how to use it. Slowly, step by step we had to model how these concrete objects could be used. We were building concepts along the way. The old admonition not to make models for children to copy is still good advice, but it needs some modification. Children who have no built-in schemas for looking at picture books, listening to stories, or using paints and crayons need someone to model these activities for them.

One rather curious reaction was noted repeatedly in connection with the plastic toy animals. The children were afraid of them. They seemed unable to accept the fact that these toys were not real animals. When the gray rat-sized elephant was presented to one child, he ran away screaming, "He bi me! Bi me!"

These severely disadvantaged youngsters were capable of as much as ten to fifteen minutes of sustained play, but we learned early that it is important to guide or direct them before they reach some commitment to an undesirable activity. How to set limits and how to reinforce desirable behavior were perhaps our most challenging control problems. When we failed to use physical punishment, the children thought we weren't serious about the limits. On the other hand, praising a child for a task well done was no guarantee that it would be repeated.

The language deficits were severe in both groups, and much time was spent in the manipulation of concrete objects, naming, classifying, and helping the children to extend their spoken language. Even among these severely disadvantaged children, however, the range of language ability was surprising. For example, on the Templin fifty-item articulation scale, the scores ranged from 1 to 49 correct responses.

Both groups changed in language behavior. Test-retest gains on the Stanford-Binet over a three-month period were positive but not statistically significant. The average increase for the three-year-olds was 5 points; for the four-year-olds, 5.69 points. Shifts in scores on the Peabody Picture Vocabulary Test (PPVT) gave us better information. Initial testing on the PPVT was done after approximately two months in nursery school. The interval between testing was approximately two and one-half months. Average increase for the three-year-olds was 13.8 significant beyond the .025 level. Teacher ratings and structured parent interviews also indicated the improvement in language use.

Guidelines for Teachers

The following points are offered in summary as guidelines for teachers:

1. Not all young disadvantaged children are alike. They have different backgrounds, different needs, and may present different degrees of deprivation. Moreover, the range of individual differences within a group may be as great as it is among groups.

2. Learning deficits related to prereading skills are associated with auditory discrimination, concept formation, and language development. Compensatory educational programs should emphasize learning activities which will eliminate the existing handicaps.
3. Young disadvantaged children have to learn to be taught; therefore, at the preschool level, teachers should emphasize the "learning to learn" rather than the "learning to read" skills.
4. Teachers planning activities to help children "learn to learn" should give attention to helping children find pleasure in books and stories.
5. Always the teacher is the master key to the motivation problem with preschool-disadvantaged children. When there is mutual respect between teacher and child, the teacher can and must serve as a secondary reinforcer for the learning behavior she expects from him.
6. Since there is no one-best educational model for all disadvantaged preschoolers, compensatory educational experiences should be integrated with the best of traditional preschool practices *(9, 10, 11)*.

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3. Our Disadvantaged Older Children

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WHILE THERE can be little doubt that the effects of social deprivation are cumulative, the characteristics of older disadvantaged children are quite similar to those of their younger counterparts. In this paper the research findings on such children, as summarized in the *Review of Educational Research,* December, 1965, form the basis for discussing their home environments, language developments, patterns of intellectual functions, and motivations and aspirations.

Home Environment

Listed among the research on the family and neighborhood environment of socially disadvantaged children were the following features:

1. About one sixth of the breadwinners were unemployed.
2. Few children regularly ate a meal with their parents.
3. Parents were usually satisfied with their children's progress in school, so long as they were not in trouble.
4. Homes had few books; children were read to less frequently and spoke less with their parents.
5. Children exhibited a fear of parental authority and a dependence on siblings and peers.
6. Parents were inaccessible to chil-

dren's communication.

7. Girls were overprotected; discipline of boys was inadequate.
8. Strong mother-dominated environments were more prevalent.
9. Lack of systematic stimulation plus the presence of much noise fostered inattention and poor concentration.
10. Parents reacted to children's misbehavior in terms of immediate consequences of action, not on an interpretation of their intent.
11. Mothers expected husbands to impose restraints upon the children rather than to be supportive.
12. Fathers felt that child-rearing was the responsibility of the wife.
13. Families tended not to frequently participate in group activities.

Gordon summarized the home and family environment as being ". . . noisy, disorganized, overcrowded and austere, . . . lacking many of the cultural artifacts often associated with the development of school readiness, such as books, art work, variety of toys, and self-instructional equipment. Adult models . . . have been seen as being incongruous with the demands of the school, . . . and the parents of these children often have been reported as failing to support their children's academic pursuits" *(1)*.

Language Development

Jane Raph summarizes the characteristics of disadvantaged children's language developments with the following statement: "Research to date indicates that the process of language acquisition for socially disadvantaged children, in contrast to that of middle-class children, is more subject (a) to a lack of vocal stimulation during infancy, (b) to a paucity of experiences in conversation with more verbally mature adults in the first three or four years of life, (c) to severe limitations in the opportunities to develop mature cognitive behavior, and (d) to the types of emotional encounters which result in the restricting of the child's conceptual and verbal skills. Distinctive qualities of their language and speech include (a) a deficit in the auditory-vocal modality greater than in the visual-motor areas; (b) a meagerness of quantity and quality of verbal expression, which serves to depress intellectual functioning as they grow older; and (c) a slower rate and lower level of articulatory maturation" *(2)*.

Perceptual Styles and Patterns of Intellectual Function

Gordon noted that disadvantaged children have perceptual styles and habits which are inadequate or irrelevant to academic efficiency. He listed the following characteristics from the research:

1. The absence of any high degree of dependence on verbal and written language for cognitive clues was prevalent.
2. Traditional receptive and expressive modes have not been adopted.
3. Concentration and persistence needed on learning tasks were lacking.
4. Auditory discrimination and recognition of perceptual similarities were relatively poor.
5. Slowness appeared as a feature of cognitive function.
6. A "so what" attitude toward difficult problems resulted in a proportionate decrease in learning overtime.
7. Feelings of inadequacy were displayed in school.
8. Dependence was more on external as opposed to internal control.
9. Low self-esteem, high incidence of behavioral disturbance, and distorted interpersonal relationships characterized ego development.

Motivation and Aspiration

The research on motivation and aspiration revealed that motivation in socially disadvantaged children was frequently inconsistent with the demands and goals of formal education. The nature of their aspirations was usually consistent with their perceptions of the availability of opportunity and reward. Symbolic rewards and postponements of gratification appeared to be ineffective as a means for motivation. Drive was present, but its direction may not be complementary to academic achievement. Socially disadvantaged children tended to be less highly motivated and had lower aspiration for academic and vocational achievement than did their middle- and upper-class school peers. High levels of aspiration and positive attitudes toward school were only infrequently encountered in lower socioeconomic groups.

Remedial Programs

Characteristics of socially disadvantaged children should be used as information for designing meaningful curricula. While there is agreement on the general characteristics of such children, it must be pointed out that individually they demonstrate widely differing characteristics.

John I. Lee indicated that, "Teachers and schools must, at an early age, discover and identify each child, and must comprehend his development, his individual capacities, and his needs." School services, ". . . must be provided promptly to remove or minimize each child's disability and to educate him 'over' or 'around' or 'in spite of' his limitations . . ." *(3)*.

Reading Centers

For example, the failure of a considerable number of culturally disadvantaged children to achieve reading proficiency suggests that a need exists for diagnostic, evaluative, and remedial services for these children. Currently Detroit is in the process of establishing experimental remedial-reading centers. The purposes of the centers are (1) To reduce the extent of reading retardation of socially disadvantaged children from low-income families in grades 4 through 12, and (2) To gain further knowledge and skill for the remediation of reading deficiencies for large numbers of disadvantaged children and youth.

In order to accomplish the objectives as outlined above, five reading centers have been established to give intensive remedial services to disadvantaged pupils who are seriously below their potential in reading achievement. A request for Federal funds to establish the centers was approved under the Elementary and Secondary School Act. Sixty-four public schools and forty-nine non-public schools in three (of nine) administrative regions in Detroit were included. These region areas are characterized by older and often substandard multiple-dwelling housing and populations below the city mean in family income, occupational status, and adult-education level. School data reveal a higher dropout rate, higher degree of overageness for grade placement, and a greater reading retardation for pupils in these regions than for the city as a whole.

Each of the three administrative regions has two centers: one to accommodate elementary-junior high students and, the other, a senior-high unit. On the senior-high level, the centers are housed in high-school buildings where space permits. Elementary-junior high classes are held in mobile units, 20 feet wide by 40 feet long. These have been placed on selected sites adjacent to public schools. At the present time, four such mobile units adjoin each of three elementary schools and one senior-high school. Each elementary-junior high unit serves approximately 18 to 25 public and non-public schools. The transportable buildings provide office and classroom facilities, and air conditioning makes it possible for them to operate during the summer months. Small classrooms are equipped with a wide variety of multi-level books and SRA reading laboratories. Controlled readers, tape recorders, filmstrip projectors, and other visual equipment are provided in each room.

Staff

The staff of the reading centers is unique. Each center is made up of experienced Detroit public-school personnel, especially chosen for this assignment, and includes an administrator, a reading diagnostician, a social therapist, a psychologist, and six reading teachers. If there is evidence of need, more specialized professional help (such as, services of an audiologist, neurologist, ophthalmologist, or psychiatrist) is available. In this way, the centers provide thorough diagnosis of a child's reading disability and correction of physical, emotional, or neurological defects suspected of being contributing causes of this reading retardation.

Selection of Pupils

The students are selected from certain public and non-public schools in the project regions. A principal or teacher from a participating school may refer a student from grade 4 through 12 who is reading at a level which is significantly below his measured or estimated-learning capacity. In general, the criteria for selection are as follows: the student must be reading one or more years below his grade level; he must possess an I.Q. of 80 or above; and he may not be a candidate for a special-education program. After his referral, comprehensive diagnostic tests are administered by the reading diagnostician. The diagnostician may, or may not, enlist the services of the social therapist or psychologist, depending upon the analysis of the testing data. Referring schools are then notified of test results and the names of the students to be admitted to the center. After parental permission has been obtained, the student is assigned to a class and is provided with bus transportation from the participating school to the center.

Schedule of Classes

Students who attend elementary-junior high centers spend one hour, two days per week in class; students who attend senior-high centers spend one class period, four days per week. Small class size of eight to ten students enables the reading diagnostician to design a remedial program individually tailored to meet the specific needs of each student. Adequate time for planning and evaluating is provided since the teacher has only four classes per day on the elementary-junior high level and five classes on the senior-high level. No classes are scheduled on Wednesdays, this day being set aside for in-service training, staff appraisals of student progress, conferences with parents, and conferences with teachers of children from the participating schools. It is not possible to estimate the length of time that a child receives instruction at the center because kinds and degree of reading retardation will vary with the individual student. However, before a student is released from the center, all concerned personnel must concur that he is ready to operate without further instruction from the center.

Evaluation

In order to measure the value of such services, a tentative-evaluation design has been formulated by the Research Department of the Detroit schools. This design includes measurement in terms of the project's expected outcomes (product evaluation) and in terms of the services provided and the methods used (process evaluation). The product evaluation will be based on a random sampling of experimental- and control-group pupils. The experimental group will consist of pupils who have had remedial instruction at the project centers; the control group will consist of eligible pupils who have not had remedial instruction at the project centers. The process evaluation will include a continuing examination of the specific objectives of the project and of methods, materials, facilities, services, and staff effectiveness. The main purpose of the process evaluation is to identify changes that should be introduced to increase the effectiveness of the project in attaining the general objectives.

It is the hope of the project staff that as the result of their efforts pupils' attitudes toward themselves and reading will improve, reading-achievement levels will be raised, and the centers will prove beneficial to instructional personnel of participating schools.

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C3. BILINGUALISM

1. Cultural Aspects of Bilingualism

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I. Introduction

IF YOU had heard a great deal of Spanish before you started attending formal school, the sound pattern *"Cuantos años tiene Ud?"* would be very familiar. You would translate literally into English "How many years do you have?" and answer the question "How old are you?" A psychometrist administering an individual intelligence test asks a young Spanish-speaking child, "How many ears do you have?"; changing "ears" to "years," the child translates *"Cuantas orejas tiene Usted?"* as *"Cuantos años tiene Ud?"* and tells the examiner that he has *eight ears*. Since this answer is obviously absurd, the examiner recognizes the lack of understanding and clarifies the ear-year discrimination. Yet, how many similar word confusions in translation go undetected?

Clara Gonzales, more than 40 years a teacher and principal at the Zuni Pueblo, tells about the fourth-grade boy who, when asked "Who was Magellan?" responded with "Magellan was the first man to drive his *sheeps* all the way around the world."

On the Navajo Reservation, a foreman came upon one of his Navajo workers loafing at his job. "You're getting away with murder," he said. To this remark the Navajo replied in a rather shocked manner, "Oh, no, I would never *kill* anybody." We may assume that *murder* has, for him, only its literal definition.

A second-grade teacher asked a reading group in the circle to recall what they'd seen in a picture after glancing at it and then closing their books. When an eight-year-old Navajo boy was asked to tell, he quickly responded, "I saw a *time*." He meant he had seen a *clock*. One can understand much about a culture by the language of its users.

While in English the clock "runs," the Spanish clock "walks." (In French it marches and in German it functions!) The English-speaking person must hurry to make use of time before it runs away, but the Spanish-speaking person may take a more leisurely attitude. The English-speaking person who arrives late for work tends to say, "I missed the bus," and thus makes himself the active agent and accepts responsibility for his tardiness. However, the Spanish-speaking person is more apt to say that the bus left him, and, consequently, does not make himself directly responsible! If dishes break because they fall out of your hands instead of because you drop them, language may be a good guide to the way a person perceives himself in his environment *(15)*.

Kaulfers illustrates clearly how language is an integral part of a people's culture. Language is the means by which thoughts and feelings are expressed; language guides our thinking about social problems and processes. Kaulfers says:

> How translation can defeat its own ends if words are merely transverbalized without regard for their pleasant or unpleasant associations is illustrated by the difficulties missionaries have sometimes had in trying to convert remote populations to Christianity. Most Eskimos, for example, eat no bread. Few like it, because it has no taste or smell. Consequently, early missionaries found it difficult to explain the phrase, "Give us this day our daily bread." To win the natives, they had to substitute "walrus, polar bear, and deer." This illustration is but one of many that could be cited to show how an expert command of a second language always requires a thorough understanding of the attitudes, likes, dislikes, customs, and standards of values of the people *(3)*.

When the late Professor Clyde Kluckhohn was consulting in Japan with people writing a "democratic" constitution after the end of the second world war, he asked a Japanese with a fair knowledge of English to translate back from the Japanese that phrase in the New Japanese Constitution that represents "life, liberty, and the pursuit of happiness." The Japanese rendered, "License to commit lustful pleasure" *(4)*.

Dora V. Smith, in her Kappa Delta Pi

lecture *Communication: The Miracle of Shared Living*, tells the story of a little Japanese girl who was spending a year in an elementary school in this country *(9)*.

> At Christmas time her American classmates sent a package to her school in Tokyo. They decided to write a letter to accompany it. When Reiko was asked whether she wished to add a line, this is what she wrote: "The boys and girls in America sound funny when they talk. We have to read in English, too. But they laugh and cry and play in Japanese."

Jade Snow was seventeen and had just arranged her first date without her mother's or father's permission. Her traditional Chinese father chastised her in this manner *(14)*:

> Where and when did you learn to be so daring as to leave this house without permission of your parents? You did not learn it under my roof.

When Jade Snow tried to explain her behavior to her parents, her father angered and continued:

> Do I have to justify my judgment to you? I do not want a daughter of mine to be known as one who walks the streets at night. Have you no thought for our reputations if not for your own? If you start going out with boys, no good man will want to ask you to be his wife. You just do not know as well as we do what is good for you.

II. Conflicting Cultural Values

In the Southwest, as well as in many other places in the United States, children come to school with a set of values and a background of experiences radically different from those of the typical middle-class Anglo teacher who teaches them. To teach these children successfully, the teacher must seek to understand them, to accept without rejection or insult their values, ideas, and everyday behaviors.

Since social scientists are agreed that cultural groups are not significantly different in levels of intelligence, schools must look to other areas of behavior to explain the poor academic achievement, the high drop-out rate, and the unemployability of these uneducated adults.

Some of the cultural values that teachers are apt to teach and reinforce are:

1. Competitive achievement and climbing the ladder of success;
2. Time orientation that is precise to the hour and minute and strongly oriented toward the future;
3. That there is a scientific explanation for all natural phenomena;
4. That change is to be accepted and anticipated;
5. That socially approved behavior is gregarious, out-going, competitive, and somewhat aggressive. (A Pueblo Indian child may have been taught to be shy, quiet, reserved, conforming, and anonymous!)
6. That one can, to a considerable degree, by hard work on his part shape his own future destiny. Teachers emphasize that formal education is the instrument facilitating social mobility.

The following chart presents specific conflicts in the traditional values of the Indian child of the Southwest, the Spanish-speaking child, and the middle-class teacher in the American Public School.

CONFLICTS IN CULTURAL VALUES IN THE MINORITY GROUPS IN THE SOUTHWEST

American schoolteachers are sure to place great value on:	Children from *traditional* Indian families may be said to have accepted:	Children from *traditional* Spanish-American families may be said to have accepted:
Mastery over Nature. Man must harness and cause the forces of nature to work for him.	*Harmony with Nature.* Nature will provide for man if he will behave as he should and obey nature's laws.	*Subjugation to Nature.* An often observed reaction in the traditional Spanish American was, "If it's God's will."
Future-time orientation. All living in our society is future oriented.	*Present-time orientation.* Life is concerned with the here and now. Accepting nature in its seasons, we will get through the years, one at a time. "If the things I am doing now are good, to be doing these same things all my life will be good."	*Present-time orientation.* For the traditional Spanish-American family, the only important goal of life was going to heaven after death. One only passed through this temporal life to receive his "reward" in the next.

CONFLICTS IN CULTURAL VALUES IN THE MINORITY GROUPS IN THE SOUTHWEST (*Continued*)

American schoolteachers are sure to place great value on:	Children from *traditional* Indian families may be said to have accepted:	Children from *traditional* Spanish-American families may be said to have accepted:
Level of aspiration. Climb the ladder of success. Success is measured by a wide range of superlatives: *first, the most, the best,* etc.	*Level of aspiration.* Follow in the ways of the old people. Young people keep quiet because they lack maturity and experience. This de-emphasizes experiment, innovation, and change.	*Level of Aspiration.* "To work a little, rest a little." Follow in one's father's footsteps. Be satisfied with the present.
Work. Success will be achieved by hard work.	*Work.* One should work to satisfy present needs. Accumulating more than one needs could be construed as being selfish, stingy, or bigoted.	*Work.* Work to satisfy present need. The Spanish American was particularistic in nature. He operated on emotional response rather than subordinating the individual to the societal institution. A businessman looks first at himself as a brother to to the man who is asking for credit and second as a businessman who is dealing with a customer.
Saving. Everybody should save for the future. "A penny saved is a penny earned." "Put something away for a rainy day." "Take care of the pennies and the dollars will take care of themselves."	*Sharing.* One shares freely what he has. One of the traditional purposes of the Shalako was that a man could rather anonymously provide a ceremonial feast for the village if he were able to do so.	*Sharing.* Traditional pattern included sharing within the extended family group. In cultural transition, Spanish Americans suffered considerable economic poverty. Those established in the dominant culture accepted Anglo values in sharing.
Adherence to time schedules. "Take care of the minutes and the hours will take care of themselves." In practice, we have become so enslaved to time schedules, we might be termed "clock watchers."	*Adherence to time schedules.* Time is always with us. The unhurried inexactness of the Indian with appointments has led to the expression, "He operates on Indian time."	*Adherence to time schedules.* The expression for "the clock runs" translated from the Spanish is "the clock walks." It has been said that this explains the "mañana attitude" which Anglos have observed in some Spanish Americans.
Acceptance of change. Change, in and of itself, is accepted as modal behavior.	*Reaction to change.* We may follow in the old ways with confidence.	*Reaction to change.* We may follow in the old ways with confidence. The reason may not be at all the same as the Indians, however. This life on earth is endured only to win eternal life in Heaven.
Scientific explanation for all behavior. Nothing happens contrary to natural law. There is a scientific explanation for everything.	*Non-scientific explanation for natural phenomena.* Mythology, fear of the supernatural, witches, and sorcery may be used to explain behavior.	*Non-scientific explanation for natural phenomena.* Witches, fears, and non-scientific medical practices were used to explain behavior.
Competition. Aggression. One competes to win. Winning first prize all the time is a coveted goal.	*Cooperation.* Remaining submerged within the group. Traditionally a man did not overtly seek offices of leadership or attempt to dominate his people. In sports if one won once, he was ready to let others win.	*Humility.* Acceptance of the status quo.

CONFLICTS IN CULTURAL VALUES IN THE MINORITY GROUPS IN THE SOUTHWEST (*Continued*)

American schoolteachers are sure to place great value on:	Children from *traditional* Indian families may be said to have accepted:	Children from *traditional* Spanish-American families may be said to have accepted:
Individuality. Each individual shapes his own destiny. Self-realization for each person is limited only by his capacities to achieve.	*Anonymity.* Accepting group sanctions, "sinking" the individual in the group, and keeping life rigidly routinized—all these place primary emphasis on conformity.	*Obedience.* Life was routinized, placed emphasis on obedience to the will of God.

Spang poses some questions for counselors of Indian students and predicts that many of the counseling techniques learned in formal university courses will not work very well unless the counselor understands:

> How does one encourage an Indian student to become competitive when it is not in his value system to be so?
>
> How does the counselor approach the problem of the Indian student who is failing because he does not compete but has the ability to do so?
>
> What does the counselor do to instill in the minds of Indian students a desire to aspire to higher-level occupations?
>
> How does the counselor encourage a student to seek medical help when he believes in "medicine men?" *(11).*

When Sad-Girl's grandmother decided that Sad-Girl must go away to the off-reservation boarding school to learn the white man's reading and writing, the grandmother arranged with the trader at the trading post to have her granddaughter registered for school, then arranged for her to ride to the trading post at the appointed time with the neighbors, the Yuccas. Enroute to the trading post, the Yucca children explained that the Navajo name was not sufficient in the white man's school and, after due deliberation, named her Rose Smith.

Later in the boarding school, she was awakened one night by the crying of her roommate in the lower bunk. She had been a bit frightened by the strange, muffled sound which the crying had made. Her first thought was that it might be the ghost of an earth person because she knew that ghosts appear only after dark and only on moonless nights. Rose must help her friend, Isobel.

> If Isobel had contracted sickness or disease, it was because she had violated a taboo or had been attacked by a ghost or a witch. If the latter was the case and the spectral attack was very recent, it could be averted or lessened by certain precautions.
>
> She fumbled her way through the darkness to the dresser. Her fingers slipped down, counting, until they arrived at her own drawer. Inside, carefully laid away with her change of underwear and her sweater, was a tiny sack of gall medicine. Grandmother had made it for her just before she left home, so it was fresh and potent. It was composed of dried and pulverized galls of many animals and was a sure cure for anyone who had unknowingly absorbed a witch's poison *(5).*

III. The Interdependence of Language and Culture

The way in which the language is rooted in the culture is generally understood and accepted, but the implications for children's learning in school have not been explored. To master a second language and thus become a bilingual person included the possibility that such a person is still able to function in only one culture. Hence, he is a mono-cultural-bilingual person. If he lives in or internalizes the values of another culture and learns its language, he may, hopefully, become a bilingual-bicultural person. On the other hand, it is possible to live in a second culture and internalize the values and not learn the language and thus be a monolingual-bicultural person. This point is theoretical and not apt to happen, at least in any complete sense, since one cannot fully master a language without absorbing some of the thinking, feelings, and attitudes that are required for accurate interpretation of the language. Nor is one apt to acquire the thinking, feelings, and attitudes in a cultural setting without absorbing some of the language. It is the thesis of this paper that the basic *problems are those of biculturalism,* not bilingualism *(10).*

The scope of biculturalism may be illustrated if one thinks of the use of the word *father* in Anglo-America and in Zuni culture. For the Zuni Indian child, the word *father* represents his mother's husband, a man who enjoys his children as companions. He takes no part in disciplining his children, nor does he have any concern for their economic security. In his matrilineal society, the mother owns the property and her brothers assist in the rearing of and disciplining of the children. Further, it is said, that she may divorce this husband by leaving his shoes and ceremonial garb outside the door while he is away and that this act will be his cue to gather up these few belongings and return to his mother's house. Family organization is of an extended nature, and the marriage does not decree that a man-wife love relationship is more important than the consanguinal mother-son or brother-sister relationship. In short, in a matrilineal, consanguinal, extended family, *father* may mean a specific set of behavior patterns such as is described here.

Father, for the Anglo-American middle-class child, represents the legal head of a household who is held responsible for the rearing and disciplining of his children. His marriage to his wife is based on a conjugal, or love, relationship; and even if dissolved in a court of law, he may still be held accountable for her full support. For this child, *father* is a set of meanings derived from a patrilineal, conjugal, nuclear family relationship *(16)*.

A Pueblo-Indian college student suggested that this understanding of the word *father* is also important to the Indian child's teacher:

> It would sure help if the teacher knew who was directly responsible at home for the boy's behavior. I have heard the teacher say to a student, "If you don't do so and so, I'll tell your father." The Indian boy thought this was a big joke because he knew his real father would never lay a hand on him.

Four categories follow in which the language of one culture differs from the language of another:

1. Certain features of living are similarly manifested in both cultures and have similar significance. They overlap. Such areas include family relationships, school activities, food and shelter, tools, and recreation.
2. A second class of cultural features may have the same manifest in the countries being compared but have a different meaning; such as kinship terms, gestures, greetings, use of the eyes, manner of dress, etc.
3. A third class of features may have the same meaning in both countries but a different manifestation. For example, children get hungry before meals, but in Topeka they may eat crunchy corn crisps while in Thailand they eat dried squid or green guava.
4. In the fourth category are those cultural features that do not overlap in any way in the two cultural areas. In Burma, a student might hear that his aunt in the back country has just been eaten by a crocodile; yet, he cannot fathom the fact that trains run in tubes underground in many large cities *(13)*.

IV. Teaching English As A Second Language

There's a story going around that involves a carpet layer who had worked all day installing wall-to-wall carpeting. When he noticed a lump under the carpet in the middle of the living-room, he felt in his shirt pocket for his cigarettes and they were gone. He was not about to take up the carpet, so he went outside for a two-by-four. Tapping down the cigarettes with it would be easy. Once the lump was smoother, the man gathered up his tools and carried them back to the truck. Then two things happened simultaneously. He saw his cigarettes on the seat of the truck, and over his shoulder he heard the voice of the woman to whom the carpet belonged. "Have you seen anything of my parakeet?" she asked plaintively *(6)*.

Some of our behavior with boys and girls may be like this man's. Of necessity, we must often and all through each teaching day, make decisions based on our conception of what is happening at the moment. We are killing parakeets, figuratively, when we misjudge a child's ability, behavior, or only *his* reasons for his use of language that is not what we expect.

Dr. Allen suggests certain procedures in teaching language lessons to groups learning second languages:

1. Do *not* introduce a new *vocabulary* item at the same time that you are introducing a new *structure* pattern. Rather,

teach new vocabulary in old sentence patterns; and teach new sentence patterns with old vocabulary items.

2. Do not teach two items that might be confusing during the same class period. For example, children need a few prepositions. Ruth Crymes suggests concentrating on these nine: *at, on, in, of, for, from, by, with,* and *to*. However, they must be taught one at a time, not all at once.

Also, Virginia Allen suggests *not* teaching word opposites as new concepts during the same class period. In the pairs, large-small, old-young, up-down, teach one of the words in one lesson and the other member of the pair after the first is understood. If the child tries to learn both at once, he may confuse the two completely.

3. Young children need words that are required for the use of fundamental grammatical patterns such as the names of the days of the week, months of the year, numbers to ten, and common adjectives.

Don't try to teach beginners all the words that pertain to clothing, shelter, food, or transportation: only the items in their environment that are important to the learners should be taught at this time.

At this point, the mastery of structure and sounds is most important; the size of vocabulary load must be subordinated to this mastery.

4. Do *not* spend drill-class time talking to the class about what they need to be learning. Do *not* present long lists of isolated vocabulary to work on, for example. Rather, strive for class participation as much of the time as possible. Work on patterns with zest and variations and keep the responses changing. Plan many substitution drills, expansion drills, and changing-sentence-order drills; and as soon as children are "comfortable" in group responses, move to smaller group and individual responses. For beginning groups many words can be taught through objects and pictures and through demonstration—pointing to objects, pointing to small models of furniture, or pointing to articles belonging to the students *(1)*.

The six component parts of a school program of teaching English as a second language are:

1. *Experiences*. The teacher needs to capitalize on or to create experiences in which the need for speaking English is present. The child's acquaintance with the concept through first-hand and concrete experience should help to insure understanding of the idea and integration of the concept into his total background of experience.

Morris reminds us that learning cannot take place in a vacuum. Too often this accomplishment is what we are expecting when children are asked to deal with facts and concepts of an urban, industrialized society in terms of their own rural, nonindustrial cultural experiences.

Morris goes on to say:

> A survey of commonly used social studies and science textbooks in the primary grades shows that they emphasize units dealing with cities, urban activities, and with the artifacts of a modern, industrial society—the large city fire department, factories, newspaper and telephone offices, machines and modern sources of power.

Morris attempted to meet this problem of vocabulary development by providing a series of fifteen field trips for first and second graders with language patterns planned for oral-aural practice both before and after the excursion *(7)*.

2. *Vocabulary*. The teacher needs to develop systematically a vocabulary for expressing oneself. Acquiring a knowledge of words and practicing precise use of prepositions, idioms, synonyms, pronouns, and verb tenses are a never-ending task in language.

3. *Sentence Patterns*. The teacher needs systematically to develop *automatic control and fluency* in the use of natural and accurate English-language patterns. Children must habituate the commonest speech utterances and be able to use them with ease. Approximately 300 common English expressions constitute a large percentage of the language used in casual conversation in greetings, passing the time of day, and obtaining or giving information for satisfying one's needs. These are presented in detailed lesson plans for teachers in the *Language Guides of the Puerto Rican Study;* the "Teachers' Guides for Teaching English," prepared by the Philippine Center for Language Study; the *Fries American English Series;* and the *Teaching of Structural Words and Sentence Patterns*.

4. *Imitation of a good speech model in the vernacular.* The teacher needs to help the learner understand and produce precise sounds, rhythm, and intonation. This ability will be accomplished by imitation of a native speaker, or competent speaker, whose inflection, emphasis, stress, and pitch characterize a "normal form" of English speech. It will be helpful, at times, if the teacher knows the students' vernacular so that he will be aware of differences in the two languages in rising and falling inflections, words stressed in sentences, and whether the tone of voice affects meaning.

5. *Reading and writing.* The learner will not be expected to read and write language he has not heard and come to understand in oral usage. This fact means that reading and writing will be delayed until the learner has mastered a sizeable speaking vocabulary. When the learner demonstrates sufficient readiness, the teacher needs to teach all the developmental skills in reading. Continual emphasis must be given to understanding concepts and testing the child's ability to paraphrase meanings of concepts presented. Only when the child has reached this level of competency in the use of the language is he ready to develop writing as a useful skill.

6. *Contrasting English with the child's vernacular.* The teacher will function with greater confidence if he knows something of the phonology, morphology, and sentence patterning in the child's language. This function will be discussed in the next section, contrasting English with the Spanish and Navajo languages.

Speakers of English as a second language need lots of help with minimal pairs. Minimal pairs are words that sound almost alike but have one phoneme that is not the same and that makes the two words entirely different in meaning. For example: live and leave; bit, bet, and beat; mit and meet; He's living here and He's leaving here; chop and shop; share and chair; chip and ship; chin and shin; shoes and chews; shock and chock.

They also need help with noun-plus-noun combinations — where to put the stress: Christmas tree; wrist watch; watch pocket and pocket watch; shoe box.

The *Miami Linguistic Readers* have been developed to give children these experiences with the English Language. The teacher's manuals contain much practice in sentence structure and in auditory discrimination of minimal pairs *(8)*.

What is important is that the student talks whether he makes mistakes. If he does make a mistake, the teacher should repeat the item as it should be but with no scolding or explanation. If the students are making too many mistakes, the teacher should look to his teaching. If the child does not talk, there is no language to try to improve.

As a result of an experiment carried out during the 1963-64 school year, Talley recommended a special, enriched language arts program, including the teaching of oral English as a second language; the study of idiomatic English expressions and the multiple meanings of words was to be implemented in the school system for all children who hear and/or speak a language in their home situations which is not the same in which they are required to function at school. After six months of working with experimental groups in fourth and sixth grades, the experimental groups made significantly greater gains on reading tests than did control groups; but what seems more significant, their mean-I.Q. scores on alternate forms of the California Test of Mental Maturity increased ten points while the control groups' increased only three points *(12)*.

V. Teaching Diagnostically

Many children are victimized by instructors who fail to realize that grade level is a statistical concept describing the midpoint in the achievement levels of a typical group of students. The term guarantees by definition that half of any normal group of pupils will achieve at grade level or above while the other half will achieve at grade level or below. To expect all or even most children to reach grade level or above is to expect an arithmetical impossibility. One might as well argue that 90 per cent of those who marry should be women *(2)*.

Teachers' experiences in the slums strongly suggest an increase in remedial and diagnostic training in the view of prevailing needs. The most fruitful approach, in reading and arithmetic, appears to be an emphasis on remedial instruction and diagnostics: on determining not how poor a pupil is but what difficulties preclude his success. If we persist in emphasizing only a pupil's product—that is, his wrong answers and bad performance rather than the process he employs to derive answers—it is unlikely that the difficulties of learning will be determined or resolved. This experience reported for slum schools can be replicated over and over with the culturally different as well as the culturally deprived.

Skills in remediation techniques and diagnostic practices are perhaps two of the most obvious abilities of an outstanding teacher.

The ability to conduct a meaningful conference with parents is a powerful tool that too few teachers possess.

Too much formal school is so structured that success is impossible—for certain pupils. Competition can only occur within a range of uncertainty—that is, the range in which both success and failure are possible. It cannot occur where each participant does not have a chance: where the outcome of victory or defeat is predetermined. When the acceptable norm in a class has been based on the work of the typical middle-class Anglo, the culturally different, language-handicapped student has had defeat predetermined for him. In that reference, school "competition" becomes a daily punishment for those of low ability, for whatever reason. Under circumstances in which few participants have a chance to win, it is not strange that numerous students protect themselves by setting a low level of aspiration—that is, by not trying.

VI. Summary

In New Mexico, the greatest problem in the primary grades is the teaching of oral English. Encompassing Hispano-American children, Indian children, and the newly identified culturally deprived children, this group constitutes a majority of New Mexico's school children. Teachers, principals, and supervisors of primary classrooms must become much more concerned with specific techniques for teaching English as a second language. This teaching cannot, of course, be successful unless it is predicated upon understanding the boys and girls—their life values, their living habits, and their levels of aspiration for the future. Any solution to the problem necessitates, on the part of the teacher, (1) an understanding of the significance of the cultural differences, (2) proficiency in the teaching of English as a second language, and (3) ability to use remedial-teaching methods appropriate to the level of functioning of the groups taught.

VII. Some Materials for Teachers of English as a Foreign Language

A. Books on Linguistics and Methodology

1) Cochran, Anne. *Modern Methods of Teaching English as a Foreign Language.* Washington: Educational Services, 1954.
2) Fries, Charles C. *Teaching and Learning English as a Foreign Language.* Ann Arbor: University of Michigan Press, 1947.
3) Stevick, Earl W. *Helping People Learn English.* Nashville, Tenn: Abingdon Press, 1957.
4) Keesee, Elizabeth. *Modern Foreign Languages in the Elementary School: Teaching Techniques.* Washington: U.S. Office of Education, 1960.

B. Materials for the Teaching of English as a Second Language

1) California State Department of Education, *Teaching English to Spanish-Speaking Children,* 1954.

The Puerto Rican Study. Board of Education of the City of New York, Lists the following language Guides:
Teaching English to Puerto Rican Pupils in Grades One and Two, 1957.
Teaching English to Puerto Rican Pupils in Grades Three and Four, 1957.
Teaching English to Puerto Rican Pupils in Grades Five and Six, 1957.

These manuals contain an excellent discussion of the things a teacher needs to know about the Spanish language to effectively teach the Puerto Rican child to speak English. They also contain a long list of *speech patterns* on which teachers can effectively drill to make the child's oral English sentence structure conform to our "stream of speech." Address:

Board of Education of the City of New York
Bureau of Curriculum Research
130 West 55th Street
New York 19, New York

2) English Language Services, *English This Way*. Twelve books for six years. New York: The Macmillan Company, 1963.
3) *English 900*, prepared by English Language Services, Inc., (New York: The Macmillan Co., 1964). Six books each, in order of difficulty, present and provide teaching practice on 150 sentence patterns.
4) Hornby, A. S. *The Teaching of Structural Words and Sentence Patterns*. Stage 1. London: Oxford University Press, 1959.
5) Philippine Center for Language Study, (Pasay, Philippines, 1961) *Guidebooks for Teaching English as a Second Language*. This study is being done in cooperation with the University of California at Los Angeles. Correspondence with Dr. Clifford Prator, Professor of English, University of California, Los Angeles, California, will obtain information about these materials.
6) *Fries American English Series for the Study of English as a Second Language*. (Boston: D. C. Heath, and Co., 1953-1957).
Six textbooks have been prepared. Book I is designed for children, ages 10-14, beginning their study of English as a language. The Teachers' Guides are excellent. One guide book covers both Books I and II; but there are separate teachers' guides for Books III, IV, V, and VI. (Rojas, Pauline M. Editor.)
7) Wright, Audrey and James McGillivray. *Let's Learn English*. Parts 1 and 2. New York: American Book Co., 1955.

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4. Kluckhohn, Clyde. *Mirror for Man*. New York: McGraw-Hill Book Co., Inc., 1949, 154.
5. Lampman, Evelyn. *Navajo Sister*. New York: Doubleday and Co., Inc., 1956, 95.
6. "Laughter, the Best Medicine," *Reader's Digest*, May 1964, 92.
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9. Smith, Dora V. *Communication, The Miracle of Shared Living*. New York: The Macmillan Company, 1955, 51.
10. Sofietti, James P. "Bilingualism and Biculturalism," *Journal of Educational Psychology*, 46:222-227, 1955.
11. Spang, Alonzo. "Counseling the Indian," *The Journal of American Indian Education*, 5:11-12, October 1965.
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13. Van Syoc, W. Bryce. "The Scheduling of Cultural Materials in Language Lessons," *On Teaching English to Speakers of Other Languages*, Virginia French Allen, Editor. Champaign, Ill.: National Council of Teachers of English 1965, 126.
14. Wong, Jade Snow. *Fifth Chinese Daughter*. New York: Scholastic Book Services, 1963, 163-165.
15. Woods, Sister Francis Jerome. *Cultural Values of American Ethnic Groups*. New York: Harper and Brothers, 1956, 35.
16. Zintz, Miles V. "Indian Children in Public School Classrooms in New Mexico—Next Steps in Research," *NMSSE Educational Research Bulletin*, March 1963, 14.

C4. TEACHING BILINGUAL CHILDREN TO READ

1. A Beginning-Reading Program for the Linguistically Handicapped

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EVERY YEAR in almost every state of the United States thousands of handicapped pupils enter the first grade. Their handicap is less obvious than that of the physically handicapped—the blind, the deaf, the crippled. They are linguistically handicapped. More often than not their handicap is one which exists only in the school and disappears as soon as the students return to their homes or to their neighborhoods. These students, who have functioned perfectly well for six or more years in the home environment, suddenly find that the language they speak is not the language which the school expects them to speak. Theirs is not the language of school instruction.

Let us examine these children more closely. Who are they? What are they? Very often they are the children whom the professional educator has begun to classify under the label of culturally disadvantaged or culturally different. In New York they are the Puerto Ricans; in the Southwest they are the Indian children, the Spanish-Americans, the Mexicans, and the Mexican-Americans; in Miami they are the Cubans, and in all sections of the country they are very often Negroes or the Appalachian Whites. They are the children who don't fit into the neat middle-class, Anglo-Saxon stereotype for whom textbooks have been written and whom teachers have been trained to teach.

Defined in terms of what I have called their linguistic handicap, these children fall into two major categories which are useful classifications, though, perhaps, they reflect oversimplifications. Statistically, the largest group is made up of native English-speaking children whose speech habits are non-standard. The second group is made up of children for whom English is not the native language. These are the bilinguals whose control of English may range from knowing a few words to complete fluency. Many of these children come from the lowest socioeconomic levels, though many do not. Many of them come from homes in which educational aspirations are low, though many do not. Many of them are members of groups which have been the object of prejudice and discrimination, though many are not. They all, however, have one thing in common—the problem they face on entering school. They must learn not only to read and write standard English but they must also learn to speak it if they are to succeed in school and achieve maximum social mobility. Whether this demand is fair is not the question; it is simply one of the facts of life in our language-conscious society.

Basic Assumptions

Pertinent to an understanding of a beginning-reading program for these pupils are certain basic assumptions. First, it is important to understand that the language-handicapped children are not children without language. They have almost complete control of a sound system and a structure system. They control a vocabulary which may be limited but is nevertheless adequate to describe their experiences and express their needs. Nor are they children without concepts. They have well-developed sets of concepts which have grown out of their preschool experiences although these experiences and resulting concepts may be quite different from those which teachers expect.

For too long these children have been doomed to experiencing unsatisfactory progress in school and to resulting academic retardation. Usually what we describe as "their failures" are really our failures as educators. We have said or implied that the child is simply not ready for the instructional program of the school when in truth the instructional program of the school is not ready for the language-handicapped child. The world of Dick and Jane and the language which exists in their world have not been appropriate for the pupils we are discussing.

The Miami Program

One attempt to develop materials specifically geared to the needs of these children was begun almost three years ago in Miami, Florida. The Dade County Public Schools were faced with a crisis too big to ignore when thousands of non-English-speaking pupils entered our schools. The school system, with the support of a grant from the Ford Foundation, developed a beginning-language and reading program, the *Miami Linguistic Readers* series, designed specifically for first- and second-grade bilingual and language-handicapped pupils.

The *Miami Linguistic Readers* series consists of a readiness unit, twenty-one pupils' books organized into fifteen levels, two "big books," and a seatwork booklet and a teachers' manual for each level. The pupils' books correspond to the pre-primers, primers, and readers of other developmental-reading series. The "big books" provide charts for inducing language practice and for focusing on reading problems. The seatwork booklets are workbooks which provide writing activities that reinforce oral expression and reading. The teachers' manuals describe activities for language, reading, and writing practice. This two-year program represents a serious attempt to apply the findings of modern linguistic science to both language learning and to learning of reading, in an instructional package which also utilizes the sound pedagogical practices of good developmental-reading programs.

In developing the *Miami Linguistic Readers*, the staff attempted to create materials which not only meet the academic needs of the pupil but which also recognize the pupil's interests, his imagination, his need to succeed, and his need to identify.

Referential Content

The content and appearance of the pupils' books of the Miami series are somewhat unique. The books themselves resemble trade books. Each of the twenty-one books tells a complete story. Each of the stories, even the first of the series which uses only eight words, has a definite plot with cross-cultural appeal. The characters in the stories, though they are not all human in form, have very human characteristics which are easily identifiable.

In the first group of nine stories the characters are all animals—animals which are in the tradition of children's literature everywhere. They can speak, act, and react like human beings. Most of the more-than-six thousand children who have used the Miami series have had no trouble identifying with Tiff the puppy who has to learn to sit, to drink, to bury his bone. They can even identify with Biff, Tiff's father who faces frustration trying to teach his son the lessons that every good dog must learn. Oddly enough, no child, whether Cuban, Mexican-American, Negro or white, has ever worried about the race or national origin of Biff or Tiff. They also have no problem feeling compassion for Nat the Rat, who, like the children themselves, sometimes does things that get him into trouble with authority. And they feel sincere relief when Nat, who has been very bad, in a later book, manages to get out of the king's dungeons, save little Tiff from drowning in a well, and thereby become rehabilitated and a worthwhile member of society. Nat even joins the scouts and accompanies Tiff and his friends on a camping trip.

The next four stories are all adaptations of fairy tales and folk tales. *Jack and the Beanstalk*, *Rumpelstiltskin*, and *Dick Whittington and His Cat* are retold. The focus of the next books is on real children in unusual situations. There is Mark who helps to save a jet airplane which he has come to think of as his own. There is Matt, a boy from the city, who befriends a stray black cat that later helps him realize his dream of becoming a newspaper boy; and there is Carlos, a migrant worker's son, who, through a combination of his own hard work and good luck, gets the bicycle he has dreamed of. A Navajo Indian legend about a great white horse, a story of Lincoln, a mystery, and a space fantasy complete the series. The single most important criterion used in developing the series was that each story would be one which would help children develop a love for reading.

Natural Speech

The fact that a series includes interesting stories does not by itself make a good language or reading material. Other factors must be considered. Stories which are the basis for beginning-reading instructions should be written in such a way that they reflect the natural speech of children. It is possible that constructions such as "See funny father" and "See something blue," which are often found in primers, may not present a problem for many children. However, it is certain that such constructions do nothing for the child who must learn standard English. In traditional materials the caption for a picture of a dog drinking from a bowl would be "The dog drinks." This caption, of course, does not describe the action illustrated, which is "The dog is drinking," but instead presents the notion, at least to the adult reader, that the poor dog must have a drinking problem.

In the early books of the Miami series the language used is neither "primerese" nor a highly stylized literary form. It, for the most part, reflects the natural speech forms of children: what the child reads is like what the child has learned to say. As the pupil progresses through the series developing reading and language skills, he builds a readiness for a more literary style.

Aural-oral Control

It has long been recognized that a child should be able to say what he is later expected to learn to read. With this sound premise in mind, many educators today are advocating an extended period of purely oral work for the language-handicapped pupil in general, and particularly for the non-English speaking pupil. Many people suggest that this oral program should extend for as much as a year beyond kindergarten. Those of us connected with the Miami series feel that this approach cannot be justified. It seems to be a further admission that though the child may be intellectually ready to learn to read, we are not professionally ready to teach him.

Therefore, built into the Miami series is a sequential oral-language program based on linguistic principles. Through structured-language practice distributed throughout the series the pupils gain control of the sounds, structures, and vocabulary which they will need in order to read the materials. We believe linguistic readiness, like all other aspects of reading readiness, is best provided for when it is developed before each new learning task and not when it is developed globally a year or so before reading instruction begins.

Process vs. Skills

Another problem which confronts the linguistically-handicapped child when he is presented traditional reading programs is his inability to master the mechanics of reading because of the continuous demands on him to verbalize about what he is learning to read. The focus in the early materials of many reading programs seems to be more on the uses to which reading is put than on the mechanics of reading.

In the Miami series an attempt is made to first guarantee that the pupil can attach sound to the symbols on the page before he is asked to interpret the stated or implied meaning of what he has read. From the very beginning, emphasis is placed on reading with meaning; but it is also placed on word-attack skills and on reading by structural units. The emphasis on mechanics, however, does not mean that thinking skills, study skills, and interpretive skills are ignored. On the contrary, a complete skills program comparable to that of any other well-developed developmental series is built into the materials. The choice is not between process or skills; it is merely a question of sequence. Through the use of "big books," pupils' books, and activities described in the teacher's manual, the pupil learns to read what is written with understanding and then is led to interpret and to integrate what he has read.

Sound-Symbol Correspondences

Drawing on the findings of linguistic research, the staff of the Miami project organized the series in a way which should lead the child to a conscious awareness that English writing to a large extent follows predictable patterns. The relationship between the sequence of letters on the printed page and the sequence of sounds which we utter when we read is brought into focus. Though this correspondence between sound and symbol is not a one-to-one correspondence, it does exist and the pupil can be taught to react automatically to the spelling patterns.

It is no wonder that children fail to see the patterns when they are confronted with much of the reading in traditional materials. For example, in one series words such as *come, go, book, Spot, down,* and *to* all appear in the preprimers. In each word the letter *o* represents a different sound. It would be difficult for the pupil to discover anything predictable on the basis of these items.

In the Miami series the sequence for introducing the writing system is based on vowel-consonant spelling patterns. For example, in the first two books every word introduced with the exception of *and, cat, a,* and *the* contains only the one vowel, *i,* and it appears only in words in which it has the value of *i* as in *sit.* In the next book more "short-i" words are cumulated and "short-a" words such as *hat* and *rat* are introduced. In each of the subsequent books other spelling patterns are introduced in the meaningful context of the stories. In the twenty-one books, all the major and most of the minor spelling patterns of English are systematically presented and dealt with.

Grammatical Control

Another feature of this series which makes it appropriate for the language-handicapped pupil is the controlled introduction of grammatical structures. This feature allows the pupil to systematically reinforce, through reading, language patterns of standard English which he is acquiring. The child who is struggling to learn standard English should not be confused by the too rapid introduction of new syntactical patterns. For this reason, in the first two books of the series, only directions, calls, and sentences with the present progressive (is + ing) are introduced. Level two introduces statements of identification with *is*, such as, *Nat is a rat* and *Pap is a pig*. Each subsequent book introduces new structures on which the pupil has had adequate previous oral practice.

Writing Experiences

In addition to the pupils' books, "big books," and teachers' manuals of the *Miami Linguistic Readers* series, there are seat-work booklets. These booklets are workbooks which provide writing experiences to reinforce the language learning which is taking place and to reinforce the child's control of the spelling patterns which have been introduced. The seat-work booklets also contribute to the skill-building program which is developed in the series. Through listening, speaking, reading, and then writing activities, the pupil is involved in a four-fold language-arts program.

Other Controls

In addition to the control of grammar and the staged introduction of the spelling patterns of English, the project staff has maintained other controls which provide for a sequence of learnings presented in small steps. In *Biff and Tiff*, the first book of the series, only eight items are introduced in a text of 56 running words. In level seven, *The Magic Bean*, which is the last book in the first-year program, 49 items are introduced in the 1242 running words presented in the 48-page book. Average sentence length increases in a gradual progression from an average of 2.7 words per sentence in the first book to an average of eight words per sentence at the end of the first grade. The number of new items per page ranges from an average of .38 in the first book to an average of 1.1 in *The Magic Bean*, level 7.

Similar controls are exercised throughout the second-year materials. The number of new words per book increases from 52 in *Rumpelstiltskin* to 120 in *The Twin Mystery*, the last level in the series. Similarly, the number of running words in each 48-page book in the second-year program increases from 1,352 to over 3,000 in the last level.

The total number of items introduced in the pupils' books of the series is approximately the same as would be found in the first two years of a traditional program. However, because of the staged introduction of the spelling patterns the pupil should have developed automatic responses to new items to such an extent that his word-attack skills would be comparable to those of a pupil who has completed three years of a traditional material.

As a further aid to insuring success and continuous progress, a plateau story follows every three levels. These plateau books introduce few new learning problems. They are an easy reading stage in the sequence. In these plateaus, skill development is emphasized.

Methodology

The beginning-reading program which has been described represents an attempt to create instructional materials and not new methodology. It is not a new method of teaching reading. It breaks with tradition in the area of organization and to some extent in the area of content, but it follows tradition in its suggested techniques for teaching reading. We have attempted to harmonize the experience which successful second-language teachers have had with the accepted methods of teaching reading developed by reading experts during the past few decades.

It is our feeling that the well-trained primary teacher should not have to be "retooled" in order to be able to teach effectively a reading program for the language handicapped. Naturally, the teachers who understand the principles of linguistics, sociology, psychology, anthropology, and related subjects will be equipped to do an even superior job.

During the past two years over 6,000 pupils have been involved in the field try-outs of the Miami series. The evaluation of their teachers in Florida, California, Arizona, New Mexico, Colorado, Texas, and Puerto Rico, where the field try-outs have been conducted, have reconfirmed our belief that the linguistically handicapped child can learn to read, and to read well, if he is provided with the kind of program that meets his needs. It is to be hoped that more material will be developed—material which will help the teachers to do their jobs more effectively.

The well-trained primary teacher using appropriate material holds the way to the school's success with the language-handicapped child. We must use that key to open the door to new horizons for a large segment of our population.

Many of the language-handicapped pupils, who had their first reading experience with the Miami series almost two years ago, are now ready to move into third grade, reading on grade level. Though all of their school problems have not been solved, they are entering the "mainstream" of American education.

2. Adapting the Reading Program to the Needs of Non-English-Speaking Children

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IN CONSIDERING a program for developing reading skill in a second language, one should take into account what the reading process involves, how it relates to language development, and what aspects and problems are of primary importance in fulfilling the needs of non-English-speaking children.

Reading is a learned performance through which the printed or written symbols come to have meaning. It may also be defined as the decoding of a particular writing system into language. Informally, it has been referred to as getting meaning from "talk written down" or as a substitute for the "understanding of talk." Essentially, it is a languaged-related process, fundamentally and primarily audio-lingual, whose graphic forms are mere representations of their oral counterparts.

In learning to read, a kind of decoding or "transfer" takes place which stimulates the recognition of meaning through the oral language. For developing reading skill, pupils must form automatic habits of accurate response in recognizing the visual forms and bring meaning to them through previously established oral language. Just by looking at the written symbols or printed forms, the learner should be able to receive the "talk" or "speech patterns" of the language.

In other words, the oral language is the constant factor in the reading process, and it is the reading teacher's primary task to insure mastery of related audio-lingual exercises as a prerequisite to the introduction of reading. Oral production and facility are needed for effective reading development, since one important aspect of the reading process is developing the pupil's ability to recognize accurately and rapidly the visual symbols (printed words) and to gain meaning from them through their oral or spoken counterparts.

When native English-speaking children enter school, they have had ample experience in speaking English, having learned to use in basic structural patterns from 2,000 to 6,000 words. By the time they have had initiatory experience in reading readiness, they may be introduced to reading; and in the initial stage of reading development, the teacher needs only to limit his materials to the oral language mastered previously and teach their representative visual forms.

Teaching non-native speakers to read English as a second language is a different matter. When the average child of this group enters school, he knows no English or only a limited amount; and he brings with him a different cultural heritage from that of most other members of the classroom. Therefore, he is faced with a dual task: he must adjust to a strange foreign-speaking environment and master a minimal counterpart of the new language audio-lingually before he can be introduced to reading. In other words, he must learn another language, making it his "first" for all of his school relationships, and compete at the same time with native speakers of the same age and grade level.

What adjustments must the teacher make in his reading program to include the development of adequate audio-lingual skill in the new language as an integral part of his school program? What materials, methods, and techniques are best suited for insuring successful reading achievement? What determinants should be taken into consideration in his pre-planning and sequencing of materials?

First of all, the teacher needs to consider the children he is teaching. He should familiarize himself with their cultural heritage and native linguistic backgrounds and learn in what ways these interrelate to their adjustment to the school environment and the attainment of linguistic objectives. Through this type of diagnosis, the teacher can recognize the deep significance and full implication of their cultural and linguistic disadvantages and can create a wholesome learning environment in which there is adequate challenge coupled with reasonable success and personal satisfaction.

If the children come from a "restricted-experiential-conceptual" background, the teacher knows that they lack vital first-hand experiences necessary for expanding their fund of concepts and information. He needs to give many opportunities for class visits, listening-viewing experiences, and drills in associating words to objectives and activities that are meaningful. If they come from an environment where the "achievement expectancy" receives little emphasis, they must be guided through *experience with success* until learning *per se* can carry its own intrinsic motivation. If they have developed a low-aspiration level through repeated failures and home limitations, they need goals set that are within their grasps and which carry the reward of successful achievement. If they encounter isolation, ridicule, and non-acceptance by members of their school group, they need help in establishing and maintaining status and in developing a healthy self-image. And above all, they need the security of knowing that their teacher is interested in them and is able to show them affection at all times.

Second, the teacher needs to consider the type of oral language program he must organize as a basis of reading development. His fundamental task is to help the non-native English speakers widen their linguistic backgrounds through a sound and adequate program based on audio-lingual drills. He must try to substitute the realistic for real life situations and strive to crowd the English-speaking children's experiences of several years into a few months of intensive and minutely organized oral practice. In their first year of school, all types of interesting activities in a kind of play atmosphere should be used to help the children learn to "hear," "recognize," and "reproduce" all basic forms and lexical items that they will need in their reading program.

In order to insure audio-lingual development, the learner in the new language must begin where the first language learner did. He must learn to *discriminate* the sounds he hears in the stream of speech, to *articulate* the sounds accurately in imitation of a model, and to *assimilate* their meanings while he is practicing them for automatic control. The more meaningful the material to be learned, the greater is the facility of learning and retention.

Even the youngest pupil can assimilate both sound and structure and establish the link between language and behavior just as the first learner did if the materials for class drills have been presented to bring about *careful listening, accurate repetition,* and *meaningful practice*. More specificallly, the class presentation should be given through the sequenced steps of *LISTEN, REPEAT,* and *PRACTICE.*[1] The pupils "listen" to each pattern repeated by the teacher and associate sound and meaning through the visual materials or dramatized action used to explain meaning. Then they "repeat" the utterance, imitating the tone of the teacher's voice and the up-and-down movement of his hand that coincides with the rise-and-fall of his voice as an aid to correct intonation. Finally, they "practice" each pattern over and over, in many meaningful situations and activities, in order to assimilate the new language for future recall and use.

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[1] Faye L. Bumpass. *We Learn English.* New York: American Book Co., 1958.

Third, the teacher should take into careful consideration the materials he will use in teaching non-English-speaking pupils to read in the second language. The most appropriate materials for meeting the academic and communication needs of these children are those that contain the basic features of English sound and structure and are arranged in teachable units following this sequential progression: *listening* to *speaking* and *reading* to *writing*.

If the teacher does not have available materials that fulfill these requirements, he may adapt the materials he does have to meet the most urgent of these needs. His guiding principle should be as follows: *No words or patterns of speech should be presented for reading development until they have been mastered in automatic form both aurally and orally.* In other words, pupils through the oral-practice session must learn how to say what they are expected to read. If they are reading, "Bing can run" or "The dog is running," they must be able to say these sentence patterns with correct rhythm and pronunciation and know what they mean. Such a prerequisite may also be applied to reading of short paragraphs or longer selections as well as to the basic-sentence patterns.

Last, the teacher needs to utilize a method of presentation and effective techniques for attaining the language growth necessary for successful reading development. The subject matter must be organized in a carefully designed sequence of minimal steps so that each step is made easier by virtue of the assimilation of the material presented in previous steps. Likewise, it should be arranged so that the pupils progress to the terminal behavior making a minimum of errors in the process.

Since the accurate and rapid recognition of visual forms is the most important skill to be attained in the initial stage of reading development, the teacher should use sequenced steps and a variety of ways to help pupils master this skill. First, he should establish a favorable class situation for *motivating interest* and *clarifying concepts*. Then through organized oral practice associated with visual referents, he should insure the pupils' recognition of all new concepts and check on their comprehension before he presents the written forms.

In presenting the printed forms for intensive drill in the "*LOOK and SAY*" step, the teacher may use flash cards or write the words on the blackboard and have pupils *look* at the words while they *say* them alone or in sentence patterns under the teacher's direction. Such oral practice with pictured clues are an aid to pupils in establishing meaning association and in helping them "fix" the graphic symbols in their memory. Varied activities, such as calling attention to configuration, analyzing parts or synthesizing them into wholes, finding and framing words, and flash-card games and drills, may create interest and stimulate learning.

When all words have been drilled on for recognition mastery, the next step, or "READ," is given. With non-English-speaking children, guided oral practice on each sentence in the lesson narrative should be given, first with books closed and then with books open. The teacher should have the pupils repeat the lesson narrative line-by-line and direct them by the tone of his voice and the up-and-down movement of his hand to more accurate imitation. He should use pictures and dramatized action to reinforce meanings through sound and structure drills of auditory patterns. Silent reading of the same material should follow the oral-activity drill. As a culminating activity, the teacher should have individual members of the class read aloud. Much stress should be given to correct pronunciation and intonation during the reading; and if errors are noted, more drill is needed. This activity should be strictly teacher controlled. The greatest danger is allowing the pupils access to the graphic forms too soon and thereby reducing essential oral drill through repetition.

To avoid "word-calling" without comprehension of meaning, the teacher needs to make frequent tests to see if the pupils are really getting the meaning from what they are reading. An "*ASK and ANSWER*" step should form a follow-up exercise of every reading lesson. Questions cued to elicit full sentence responses, matching exercises of all kinds, and completion tests may be used to advantage.

Though oral practice is the core of the reading program in the second language, pupils should have frequent opportunity to reinforce the oral forms through writing drills as culminating activities in the last step or "*WRITE*." The writing exercises should lead into a spelling lesson based on the reading materials and dictation exercises of basic declarative sentences and questions to be used as homework.

At about the fourth-grade level, the non-English-speaking pupils begin to falter in their progress. Lack of mastery of concepts on previous levels, a greater vocabulary load, and inability to cope with abstract concepts found in the reading program contribute to making the number of failures greater. On this level also they have to begin to read thought units of increasing size, such as the phrase, the clause, and longer sentences.

Some kind of supplementary-reading materials whose primary purpose is that of affording interesting material of high emotional content arranged around basic structural patterns to improve oral-language ability would be able to help them "bridge the gap" through this transition period. The five-book series of "*Let's Read Stories*"[2] was published with this purpose in mind. Serving as a link between the audio-lingual stage of language development and the acquisition of reading skill, each story is divided into brief sections preceded by a series of sentence patterns taken from the longer sentences within the reading selection. New elements of vocabulary and structure are grouped together to afford organized-pattern practice drills based on the reading. By using these drills for intensive oral practice (first with books closed and then with books open) as an aid to reading development, the teacher can help pupils establish the meaning of visual forms through the oral counterparts of structurally related items.

When the pupils read the section following the drill pages, they will learn to grasp meanings through longer meaningful units (or sentence-bearing patterns), rather than by a word-by-word transference. Approximately one hour per day should be devoted to this specific reading activity from the fourth grade upward when pupils are found to be deficient in reading ability. Not only does this material furnish reading on a high-interest level, but it gives the teacher the organization and step-by-step progression that will insure the pupils' success in reading.

In his efforts to adapt a reading program that will fulfill the needs of non-English-speaking children, the teacher must remember that they are not only learners of new linguistic skills but are also participants in a whole new cultural environment. By recognizing the deep significance and full implication of their cultural and linguistic disadvantages, by selecting appropriate materials and effective teaching procedures, by establishing a step-by-step progression built on linguistic findings, the teacher will become a positive catalyst in building these children's dignity, self-respect, and worth and in making them happier children in today's classroom and more valuable citizens in our world of tomorrow.

3. Developing Audio-Lingual Skills as a Basis for Teaching Bi-Linguals to Read

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THE YEARS from 1942 to the present have brought significant improvements in teaching foreign languages and English as a foreign language in our schools. These improvements have come about partially because of the growing national interest in this field as shown by government spending for language laboratory equipment and for teacher-training. Some have come through refined techniques and methods innovated or developed by the educators involved.

In spite of the progress noted in this area of language training, however, we have the challenge of how to teach our bi-lingual and non-English-speaking youngsters more effectively. Our school curricula, our basic textbooks, and our teacher-training are geared to the average native English-speaking students. It is difficult, if not impossible, to find a college or university course designed specifically to help teachers learn to cope with the special problems of the bi-lingual or non-English-speaking child.

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[2] Faye L. Bumpass. *Let's Read Stories*. New York: McGraw-Hill Publishing Co., 1965.

Each area of the United States where we have settlements of non-English-speaking children differs from all other areas just as each child differs from all others. For example, the Rio Grande Valley of Texas is unique because it is a Spanish-speaking area in which about 64 percent of the population use Spanish as a first language. How are we to teach these youngsters? Much has been said and written in recent years, but we have not yet found the best materials nor the best methods to help these children overcome their great English deficiencies.

What are our choices? Some suggest that we teach them in Spanish. Others suggest that we use the direct approach and teach only in English. Some suggest that we concentrate on vocabulary: "The more words they know, the better prepared they will be." Some have even suggested that a group of community volunteers teach them English conversation and language in a relaxed atmosphere. The Pre-School Instructional Program For Non-English-Speaking Children in Texas asks the teacher to stress in each lesson the following elements:

Ear training,
Phonetics and phonemics,
English structure,
Articulation, and
Vocabulary enlargement.

The Texas Program was structured as a forty-day program with a minimum of two hours per day of instruction.

Granted that this forty-day program of two hours per day is valuable, we cannot say that it is enough or that it is the best approach. Not even the master teacher can thus fully prepare the child for entering the first grade.

The instructional program for the non-English speaker should be based on the gradual development of the different levels of language learning, and it must be built around the audio-lingual skills before we can even speak of reading readiness or reading.

On level one, the youngster should have a sustained experience (of several weeks or even months) in listening and repeating. In preparing a child to be a true bilingualist we must first train him in listening comprehension. Although language sounds originate in the larynx and are modulated into recognizable speech by movements in the mouth, it is the ear that dominates the learning and use of speech sounds. *Ear training must come first.* The second part of language learning is the reproduction by the tongue and adjacent organs of the speech sounds the ear has learned to recognize. It must be understood that the sounds are not to be selected for drill in isolation but as they occur in the normal patterns of discourse. The patterns should be carefully selected with the vocabulary limited to situations that are both interesting and familiar to the child.

Spanish-speaking children, then, must learn English as a foreign language at the same time they adjust to a new and strange school environment. They are not only faced with the problem of learning the foreign language of English but they are placed in the peculiar position of making this second language *their first* for all of their school relationships.

Let us consider, as a comparison, the native English-speaking children's linguistic development when they first enter school. They have had at least five years of linguistic experience in their native English tongue and have developed a wide-enough vocabulary (ranging from 2,500 to 7,500 words) to communicate their ideas. Besides, they have mastered through imitation and repetitive use the sound structure of their language and its fundamental structural patterns — on a level consistent with their background and experience.

In other words, the average English-speaking child *knows* a vocabulary of at least 2,500 words. This fact means that he *understands* them when they are spoken; he can repeat them and can *use them orally in sentences;* and *he has experienced their concepts* in many different meaningful situations. He is ready (after a little preliminary training and school adjustment) to recognize their graphic representation. In other words, in most cases he is ready to read in a short time.

On the other hand, the average Spanish-speaking child's vocabulary is practically *nil,* and he is in no way ready to proceed toward reading readiness. It is a known psychological fact *that no new words must be presented in reading until they are mastered in automatic form orally.* If this principle holds true for native speakers, it must be even more necessary for the Spanish-speaking child who is learning to read in the second language.

Just how many words must a Spanish-speaking child master in his oral English vocabulary, before he can proceed with reading development? According to Tireman, one of the experts in the field, a minimum oral vocabulary of 300 words and 75 sight words is essential before any steps in reading can be taken. This amount IS AN ABSOLUTE MINIMUM. Some other authorities place the requirement higher; at Hays School, for example, a minimum of 620 words is expected of all Spanish-speaking children before they enter the first grade.

How long does it take to develop a functional use of the 500- to 600-word oral vocabulary recommended as the minimum essential for reading? When and where will these words be taught? The present-day tendency, receiving most use and some success, is that of having a two-month preschool or Head Start program in aural-oral language development for the Spanish-speaking children. If this program could be extended to a minimum of seven months, the non-English-speaking children would be much better prepared for school than they are today.

The teacher of Spanish-speaking children in the preschool is confronted with the problem of choosing the words that she will teach. Just what criteria should she use in choosing the most suitable words for presentation and development? Most authorities agree, in general, that two standards are of primary importance. They are *immediate need* for adjustment to the new school environment and *future usefulness* in application to the first reading program.

Besides the functional oral vocabulary included for school and classroom needs, the teacher must also choose and teach, in thorough and automatic form, the minimum oral vocabulary to be used by Spanish-speaking children in their development of reading. What sources may the teacher use to find the most useful words? One possible source is from readiness books which do *not* form a part of the basic-reading series used by the school system. Another might be from the multiple entries from the five basic series on the State Adoption List in Texas, and still another might be the words from their first four books of the *We Learn English* series, published especially for teaching English as a second language to Spanish-speaking children in the primary grades.

The teacher's double task then, of aiding Spanish-speaking children to adjust successfully to a foreign-speaking ambient at the same time that she helps them to break down the existing language barrier, is a very serious and difficult one. Her success may very largely be determined by two factors: her *attitude* toward both her work and the children she teaches and the *methodology* she uses in her classes.

When a child brings to school another language other than his own, he may encounter isolation, ridicule, and prejudice; and these may result in feelings of inferiority and emotional and social tension. He sometimes lives in precarious balance between what he has already been taught at home and the new ideas he must learn in this strange foreign-speaking ambient.

What he needs, most of all, is a teacher who understands his *cultural differences* as well as his *language differences,* who can show him affection at all times, and who will try to discover all the reasons there might be why he is not accepted as a member of his group. Thus, she will help him maintain and establish status; but if she is not wise enough to succeed in helping him, she may be responsible for the formation of a psychological block.

The following are some general statements which could be used as guides:

1. Teachers should remember that the use of pictures as well as objects will help students learn the pattern drills faster and better.

2. The words presented should not be learned apart from the objects to which they refer.
3. Complete and detailed knowledge of a language is not necessary in the first level of language learning.
4. Use of the mind should be involved along with use of the language.
5. Language is easier to learn by practice than from rules.
6. The subject matter of a new language must deal with that which is already familiar.
7. Faulty materials should be rejected. The teacher should develop new materials to meet the needs of the youngsters in his class.
8. Every sound, inflection, intonation, rhythm, and gesture of the desired language behavior must be presented in such a way they can be imitated exactly *at the same time* that the children are associating or enacting the meaning of the new concepts and learning to use them.
9. The general order of procedure to be used for securing the mastery of all new concepts is the following:
   Hearing precedes *repeating.*
   Repeating precedes *seeing.*
   Seeing precedes *reading.*
   Reading precedes *writing.*

Only the *listening* and *repeating* skills are to be given to preschool children, unless they are ready to read.

The steps for developing reading readiness in non-English-speaking children are the same as for all other children. But non-English speakers must have a longer period for developing the language which they will use in the reading-readiness program as we envision it today.

D. PROMOTING LITERACY

D1. TRENDS AND PROSPECTS

1. Federal Legislation Relating to Adult Basic Education and Literacy Training

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THE WAR ON POVERTY has exposed for all America to see the dismal facts which highlight the amount of adult illiteracy that exists in our nation. It has dramatically emphasized the relationships that exist between undereducation and low economic productivity.

It has also exposed some sensitive issues and pinpointed some hopeful trends.

Programs of adult basic education and literacy training are authorized to a greater or lesser extent by several federal legislative acts—the Manpower Development and Training Act, the Vocational Education Act of 1964, and the Adult Basic Education Section (Title IIB) of the Economic Opportunity Act. However, only Title IIB of the EOA is specifically and exclusively concerned with adult literacy education. It has been primarily in the implementation of this act at state and local levels that the issues and trends are most easily recognized.

This is not to say that issues were nonexistent prior to 1964. The signing of the Economic Opportunity Act on August 20, 1964, however, firmly resolved one issue and established a highly significant trend. The issue it settled was whether or not federal funds should be spent to encourage state and local school systems to develop or strengthen educational programs for adults. This issue had been long brewing and, although a comprehensive adult basic education bill was not introduced into the Congress until 1961, numerous efforts had been made prior to that time to secure federal legislative support.

The trend the signing of the EOA set in motion was that of stimulating increased recognition on the part of school administrators and members of boards of education that public education has a responsibility to provide at least an elementary-level education to every citizen in need of it, regardless of that student's age.

Involving State Departments of Education

During the legislative development of the Economic Opportunity Act, the issue most discussed was not whether literacy training should be a part of the total package, but whether or not the task should be primarily entrusted to the existing educational establishment. Generally speaking—although stated in an oversimplified manner— it is safe to say that the members of the President's Task Force thought the responsibility of the states for literacy education should not be left to state departments of education . . . that key members of the Congress thought it should be . . . and that the issue was finally resolved by President Johnson himself. As enacted, the legislation called for the development of state-wide plans and the channeling of funds to local boards of education through state departments of education. This is in sharp contrast to many other OEO programs which represent a more or less direct relationship between the federal government and local communities.

The organizational issue at the national level centers around a difference of opinion as to whether or not the final federal control of adult basic education legislation should rest with the Office of Economic Opportunity or in the U.S. Office of Education. At the present time, appropriations are made to the OEO and then released at the direction of the OEO to the Office of Education. For the past 18 months this procedure has resulted in incredible confusion and delay and there is at present strong sentiment in the Congress to continue the Adult Basic Education Program as a direct responsibility of the Office of Education. Adding strength to this sentiment is the fact that in the 1965 re-organization of the Office of Education, adult education was advanced to "bureau status," meaning that adult and vocational education are now accepted within the Office of Education as equal partners with elementary, secondary, and higher education.

The basic issue, however, is by no means firmly settled. One of the Administration sponsored amendments to the EOA, currently before the special Subcommittee of the House Committee on Education and Labor, seeks to reserve 25 per cent of the funds for "making special project grants and in providing teacher training." While state departments of education will still have some voice in the determination of these special projects, the major purpose is to provide the OEO with greater maneuverability in its attack on adult illiteracy.

Interdependence of School and Non-School Agencies

As a result of all this, a trend seems to be emerging. It is that, by and large, regularly established educational institutions already equipped to provide a general, basic education (the "public schools"), will be increasingly called upon to do so and will increasingly improve their capability. At the same time, other organized, cohesive forces in American society—for example, organized labor and civil rights groups—will undertake to identify, motivate, and introduce to the educational experience, individuals either not yet ready for or still unwilling to participate in the more usual kinds of educational settings.

It can safely be predicted, however, that "separate school systems" will not spring up offering "elementary level education for adults with emphasis on the communication and computational skills such as reading, writing, speaking, listening, and arithmetic; and using as content for teaching these skills such adult experiences as consumer buying practices, health habits, relations with other members of the family and community, homemaking, and citizenship responsibilities." (The definition of "basic education" as stated in the Rules and Regulations applicable to the administration of Title IIB of the Economic Opportunity Act of 1964.) With equal certainty it can be predicted that a strong and growing partnership will continue to be evident between the schools which can carry on a consecutive and developmental educational program and those social movements which can reach out to the educationally disadvantaged adult and get him started on the rocky road to educational advancement. Perhaps one of the greatest contributions the EOA has made to date toward educational progress in this country is the cooperation and inter-communication it has already engendered between public welfare, public employment, and public educational agencies. This circle of interdependence of the public agencies must be—and is being—widened to include the non-public groups that have historically been most effective in getting mass literacy movements under way.

Enlarging the Definition of Basic Education

And this points to still another trend—the trend to define "basic education" not in terms of an eighth-grade level education but in terms of the competencies that are usually equated with a high school education or its equivalent. I know of no one who would quarrel with the notion that an individual trying to earn a living and be a responsible citizen in this complicated world has a "basic" education if he has less than the equivalent of a high school education.

Legislatively this trend finds its expression in S. 3012, introduced by Senator Hartke of Indiana. The purpose of this act is to "encourage and expand educational programs for adults who have not completed secondary school or otherwise achieved an equivalent level of education and to expand supplemental educational programs for adults to enable them to overcome English language limitations, to improve their basic education in preparation for occupational training and more profitable employment, and to become more productive and responsible citizens."

I will not belabor the significance of this insofar as reading instruction is concerned. And, while I will not predict its passage at this session of the Congress, I will assert that if not enacted this year, the concept of educational opportunity that Senator Hartke has written into his bill will, in the not-too-distant future, be an accepted part of America's standard educational program. No matter how hard we try to improve the holding power of the schools, there are always going to be some (presently about a million boys and girls each year) who will drop out of school at some point before high school graduation. The extension of existing adult education to include high school level work will make certain no one is denied another opportunity.

A proposal to extend and continue adult basic education is also found in the "opportunity crusade" bill, an alternative to the administration's "War on Poverty," introduced by Representatives Albert H. Quie (R., Minn.) and Charles E. Goodell (R., N. J.). In this proposed bill, the adult education programs which are included in anti-poverty legislation would be transferred to the Office of Education and would include funding National Defense Education Act institutes for teachers of adult illiterates.

Representative Powell (D., N.Y.) plans to introduce on about May 1 similar legislation as an amendment to the EOA.

Finally, although not at the present time in the form of a specific bill, consideration is being given to the drafting of an amendment to the Elementary and Secondary Education Act of 1965 which would extend support to the states for the establishment and continuation of elementary and secondary school level programs for adults.

The Selection and Training of Teachers

A much discussed issue has to do with who is qualified to teach programs of adult basic education. Must it be a certified teacher—and one preferably with special training in the teaching of adults? Can a high school graduate do the job provided the instructional materials being used are adequate? Is some new, and as yet undescribed, type of teacher preparation required?

Some light should be cast on this issue as a result of a study presently under way by Greenleigh Associates in New York, New Jersey, and California. The study is designed to measure the advances in reading competency of various groups of adult public assistance recipients using as instructional materials four of the so-called "reading systems" taught by three different groups of teachers: high school graduates, college graduates, and trained, experienced adult education teachers.

Issues closely related to the "who should teach" issue are the length and kind of training required for teacher aids, who should do the training—publishers of materials? master teachers? faculties of schools of education?—and the extent and kind of supervision required of literacy teachers.

The most difficult training problem is not that there are not enough teachers available and willing to be retrained for the specialized field of adult basic education, but that we still know so little about how to train in this field. For example, how do you help provide a middle-class person, with or without prior experience in teaching children, the insights required to identify with—and not be judgmental about—the various worlds perceived by the socially, emotionally, and educationally disadvantaged adult? To complicate the problem further, those who have knowledge about the best ways of training teachers are in the universities which have not, up to now, been concerned with training teachers of adult illiterates. On the other hand, those who have worked closely with the adult illiterate in an educational capacity are usually found in educational, social service, or religiously identified institutions and are not necessarily skilled in methods of teacher training.

I am glad to report that school officials have not been stuffy about involving, as teachers, individuals who do not meet state certification requirements. By and large, however, the supervising teachers are expected to be individuals with a thorough professional knowledge of the ways in which people learn and to have had demonstrated successful experience. In these beginning stages of the program, these requirements cannot always be met—especially in communities without any previous history of adult basic education.

Growing Interest of Schools of Education

Recent developments rather clearly suggest that schools of education are about to begin setting up training programs for adults in far greater number than ever before.

Much of this teacher-training activity of the past year (according to a survey made by the National Association for Public School Adult Education, 13,500 teachers have already been trained to teach adult classes) came about as a result of three "trainer-of trainers" workshops held during the summer of 1965. The U. S. Office of Education, in conjunction with the National Association for Public School Adult Education, cooperated with the Ford Foundation, which made a grant enabling these workshops to be held at three different universities. Most of the states sent participants to the workshops and then these participants assumed teacher-training responsibilities in their own states, frequently in a university-related program. As the federally supported program grows to include high school completion courses, the concern of the university training centers for training teachers of adults will be even greater.

A Growing National Commitment

Although the adult education movement in America has progressed by fits and starts, we have now moved into an era in which a national commitment has been made to serve the educational needs of our adults. The recent reorganization of the U. S. Office of Education, which placed adult and vocational education on an equal plane with elementary, secondary, and higher education, is dramatic proof that adult education has come of age on the federal level. The commitment is now being carried out on the local level. There are still many issues to be settled. But the trend is clear—an opportunity to continue an interrupted education, whether at the elementary or secondary level, is on the way to becoming an operational reality for the millions of Americans who so desperately need more education.

D2. CURRENT PROGRAMS WITH ADULT ILLITERATES

1. Teaching Adult Illiterates in Appalachia

MABEL W. JENNINGS
Eastern Kentucky University

THE DOOR TO LITERACY is opening for the adult illiterates of Appalachia. Through a joint project of the states in Appalachia and the U. S. Department of Health, Education and Welfare, an educational program is being offered to the uncounted millions of adults in need of it which, at its culmination, will develop them to the high school level of competency.

The project makes possible a cooperative agreement among the state departments of economic security, the state boards of education, and the local boards of education in several states in Appalachia. Through this relationship unemployed parents participating in the Work Experience and Training Program can attend school from six to twenty hours a week as a part of their work load assignment.

The educational program planned for these adults is designed to teach the skills of communication and computation, using as content for teaching these skills such every day experiences as consumer buying, health habits, family relationships, general citizenship responsibilities, and community and world affairs.

An attempt will be made here to describe the first phase of the program as to its organization, its participants, instructional procedures, forms of evaluation, and projections for the future. The information presented is tabulated from a survey of 100 teachers and 1,070 adult students who have participated in the program.

Organization of the Program

Students were grouped into three levels: Basic Level or Level I, Intermediate Level or Level II, and Upper Level or Level III. One hundred and fifty hours of instruction were given. Centers were established to enable students to be grouped into single levels to facilitate instruction. In some of the more isolated centers it was necessary for a teacher to teach two, and sometimes three, levels. Provision was made for the services of a supervisor and a counselor for each ten classes.

Placement of the students in the various levels was based upon the last grade they completed in school, although a limited amount of testing was done. The students in this survey were grouped as follows: forty-eight classes at Level I, forty-seven classes at Level II, and thirty-two classes at Level III. Each class session met for three hours twice a week.

The Adult Students

Approximately eighty per cent of the students were on the Work Experience and Training Program and were required to attend school in order to receive their monthly welfare checks. The program was also open to other adults in the community who wanted to improve reading and writing skills. These volunteers were informed of the program by many community-minded citizens and organizations.

The educational level of the students was very low. More than half had not completed the fourth grade. Approximately one-third of all the students surveyed were considered functional illiterates; some had never attended school. The students, most of them male, averaged thirty-eight years of age. Ages ranged, however, from eighteen to more than seventy.

The general health of the students appeared good. The most serious health problem concerned vision and hearing among older students.

The general attitude of the students varied at the outset of the program. Some were frightened; some were indifferent; some were resentful. Others were ashamed that it should be generally known how little formal education they had had. Through the patient work of the teachers and the services of the counselors, these attitudes changed and teachers saw interest, effort, and genuine enjoyment as a part of each evening's class. There were changes in personal grooming, too. After the first few classes, most students came to school clean, freshly-shaven, and wearing the best clothes they had.

Attendance was understandably excellent since the Work Experience and Training Program required the students to be in regular attendance. Habitual absences were reported to the supervisor.

Instruction

Four areas of the curriculum received major emphasis: reading, writing, arithmetic, and an area labeled general knowledge. At Level I most class time was spent on the language arts skills. At Level II reading skill development still required a major portion of the class time, although there was more emphasis on development of computational skills and the general knowledge area. At the Upper Level teachers emphasized the reinforcement of basic skills, reading for information and enjoyment, and discussion of problems from various areas of adult interest: government, science, citizenship responsibilities, home and family life, and seeking and holding a job.

Learning experiences were made as functional as possible by building them around the needs and interests of the class members. Teachers were prepared through an in-service training period and used various approaches in their teaching. Level I teachers recognized the high degree of individual instruction needed for success in teaching communication skills to students with varying backgrounds and different levels of competency. The use of experience reading was a means of getting students started toward building a sight vocabulary. One group of students wrote of their attendance, as a group, at a football game. Others were encouraged to develop their own stories about horse trading, their families, building a fence, or some major interest in their lives. Teachers of other levels found it necessary to individualize their instruction, though not to the extent of those of Level I. In some cases lack of time and large classes limited the use of this approach.

In arithmetic, teachers presented new processes or concepts to small groups and then offered individual help to those who needed it. The "buddy system" worked well in this area with students paired to work together. Arithmetic was a favorite of many students. This preference created a scheduling problem for part of the teachers because when arithmetic was first on the evening's schedule some students slipped out and did not remain for later classes. Teachers stressed computational skills required in everyday situations: writing checks, filling in deposit slips, ordering from catalogs, making change, and the like.

Science teaching in some areas was complicated by the adult reliance upon "old wives' tales" and the literal interpretation of the Bible. For many students the earth remained flat and square because of the four corners of the earth referred to in the Book of Revelation. When possible, experiments were performed to add credence to new information. Even this technique was not always successful. In one case, a student stated that a horsehair put into water would turn into a snake. The student, permitted to perform the experiment, explained the absence of the snake simply by suggesting that the water was "not the right kind."

Teaching Materials

Books designed for adults were selected because of the need for materials that were new and unfamiliar. Teachers found them useful because of the simplified organization of subject matter but discovered some shortcomings. For one thing, the books were difficult for the beginning reader. For another, the content had not been planned for adults in Appalachia. They were not oriented to the male student. Finally, the books lacked visual appeal.

One student expressed his opinion of the materials. After the teacher had tried unsuccessfully to teach him to read from one of the adult books, he said, "Teacher? You teached my little girl to read, didn't you?" The teacher said that she had. "Have you got any of those books left?" The teacher said that she had them. "Then why don't you get them out and teach us like you teached our children? These books we've got here just won't work."

In addition to the basic texts, good

use was made of such materials as driver's manuals, job application forms, social security pamphlets, newspapers, voting ballots, and many others. As often as possible, forms and pamphlets were rewritten and simplified in order to control the vocabulary load.

Problems of Instruction

A major problem cited by most teachers dealt with the scheduling of classes twice weekly. Since so many of the adult students had limited recall, teachers felt that more consistent progress could have been made if classes had met more frequently. Many students had vision problems and some of those who wore glasses had the "dime-store" variety.

Although the program, as planned, permitted the movement of students from one level to another, an interesting problem developed. Many students were reluctant to leave the teacher with whom they had started. Some had no intention of finishing the Upper Level because they feared that once they completed it, they would be dropped from the Work Experience and Training Program. This would have meant facing the new responsibility of getting a job and the discontinuation of their welfare support. Despite reassurances from teachers these fears still persisted for some students.

Teachers felt that large classes and the responsibility for teaching more than one level were additional problems yet to be solved.

Students' Progress

With 1,070 students surveyed, 963 of them showed evidence of consistent progress. Three hundred and fifty-six students made sufficient progress to complete standards set for the level in which they had been placed. Fifty-eight students made little or no progress. Forty-nine discontinued the program voluntarily.

Evaluation

Teachers and supervisors believe the program to be most worthwhile. They see, reflected in the participants, changes in skill competencies, attitudes, behavior, school-community relations, and standards of living that were not evident prior to the Adult Basic Education Program.

One county school supervisor in Kentucky reported that from ninety to ninety-five percent of the children whose parents were participating in the Work Experience and Training Program were among the pupils for whom improved attendance had been recorded. Furthermore, the principals in this county credit the program with the satisfactory payment of lunchroom and materials fees in their schools.

There are indications that parents are re-evaluating their own school experiences and the role education can play in their lives. In light of the new opportunities offered under the Work Experience and Training Program the mountain phrase, "What was good enough for me is good enough for my children," is no longer true.

Many teachers feel that this has been their finest teaching experience. They express great satisfaction with their opportunity to share in the developing pride and excitement of adults as they mastered each new skill.

"I've had students shake my hand with tears in their eyes as they told me they had signed their own checks for the first time in their lives," is a typical teacher statement.

An adult, thanking his teacher, said, "I've wanted so long to be able to go to the mailbox to get the mail from the kids and to be able to read it on the way back to the house. Now I can and I want to thank you for helping me."

Projection for the Future

The Work Experience and Training Program is to be continued and adults will have the opportunity to make additional progress in acquiring the skills of a literate society. The high school level, or Level IV, is being added in at least one state in Appalachia as a pilot program under Title V of the Economic Opportunity Act. The ultimate goal of the program is to develop adult skills through high school competency, followed by a program of vocational training.

The future looks brighter for many than it ever had before. A typical young student, twenty-three years old and the father of four, looks ahead with this statement: "I have an entirely new lease on life. I had to quit school in the fifth grade. When I was seventeen I got married. We live in a slum area. Before this chance for an education I was desperate. I've asked, 'Oh, God, do I have to bring up my children like the rest of them in this area? I'd rather be dead.' Now when I get my diploma I plan to become a barber. I'm next in line for a house in the low-rent housing project. Things are looking better for us than ever before."

2. Adult Basic Education in the District of Columbia

JESSIE V. COOPER
District of Columbia Public Schools

ALL OF YOU are familiar with the unique features of the nation's capital, with its federal buildings, its monuments, its spoke-like avenues interlaced with streets, and some of the many activities of our federal government. But another Washington lies behind this facade.

Here you find the problems of an urban population—poor housing, race relations, welfare, transportation, civic organization, education—the problems each of you see in your local communities. The details are different, but the shape is common. A common problem is the lack of adequate adult basic educational progress.

Washington's population is 750,000. We rank 30th in literacy among states. The number of functional illiterates according to the 1960 U. S. census report is 33,000. If we use functioning below eighth grade level instead of fourth grade as our base, we more than double that figure. However, we believe this figure is unrealistic as a criterion for literacy in 1966. It is too low.

Our school system has had an on-going program in adult basic education for many years. In 1963 Operation Alphabet, sponsored by the Federation of Woman's Clubs, was put on the air at 6 a.m. and repeated at 6 p.m.

The efforts of Laubach Literacy, Inc. in Washington, D.C. culminated, also in 1963, in the organization of The Washington Literacy Council, whose members continue to teach workshops in the Laubach techniques and carry on volunteer teaching. The Council has operated a couple of dozen reading centers and continues to be actively engaged in fulfilling its purpose "to find and teach illiterates and semi-literates to read and write so that they may take their rightful place as citizens of the United States."

With the coming of federal funds to support adult basic education, what changes have come about in the District of Columbia?

I am sure that I do not need to tell you that D.C. operates as a state and has submitted a state plan to the U. S. Office of Education. We differ from states, however, in that we have only one school system and, consequently, do not have county or local plans to develop.

In November, 1965, two new members were added to the staff, one, a state level assistant director of Adult Basic Education and the other, Assistant Director, Pilot Projects, Model School Division. Our tasks are similar. We designate our separate activities as regular and pilot.

For both the regular and pilot programs our 1965 state plan provided for a teacher, two levels of teacher aides, and a volunteer. The basic requirement for a teacher is a college degree; the upper-level aide is required to have at least one year of college and the other aide, a high school diploma. We have required neither education courses nor reading specialization for this task of teaching the under-educated.

Assignments were made in the regular program when the assistant director began work on November 1. Classes in two regular adult education schools were divided to reduce the teacher-student ratio; and a long-standing request for teachers in welfare training centers was honored soon to be followed by other institutional programs of vocational rehabilitation, with T. B. Hospital, at Lorton Reformatory, and the Goodwill Industries. Some community based classes were started under the guidance of the state level assistant director.

As you may have surmised, a large number of students were those already in the on-going adult education program. Another large segment was tied to institutions. Other classes were recruited by teachers who were looking forward to employment, others by word of mouth of students already enrolled, and by action of church members who wanted a center in their own church.

This, in brief, is the regular program of the Public Schools in Washington, D. C.

I would like to go into greater detail about the pilot project. Let me explain the Model School Division. This represents a geographic area, encompassing four secondary schools, one vocational school, and eleven elementary schools in what was our once infamous Second Precinct, an area high in delinquency and crime, low in educational achievement, low in economic level, and culturally deprived. Here we find the city's largest contration of functional illiterates. Almost two years ago, this area to be known as the Model School Division was given large sums of additional money and somewhat of a free hand to innovate and experiment at all levels of education. The emphasis is to try new things—to be different.

Long before I was hired, a pilot project at the adult basic level had been designed and approved. My instructions were to implement this design.

One feature of the design was the contracting of the teacher training to Laubach Literacy. The innovation of the pilot project is to introduce Laubach programed learning materials to the Model School Division and as programs developed, to other parts of the city.

Laubach Literacy trained my teachers in December just prior to the holidays. Classes began in January. Laubach Literacy has also provided three in-service teacher training seminars and is preparing an exhaustive evaluation of the teacher training project as part of its contracted obligation with the Model School Division.

The Laubach class of 25 teacher-trainees included seven top-level aides as well as regular teachers. Five teachers had had a smattering of teaching experience and one had several years of experience quite a number of years ago. As supervisor, then, I am glad that the reading method expected of my teachers is one that requires a relatively short time to learn to use and that it is programed so that each student can proceed at his own pace with a minimum of help from a teacher.

The pilot classes are taught in churches, in Neighborhood Development Centers, in one institution, and in one home. Each is an exciting experience and I watch them develop with expectation and pride and sometimes the agony of a parent helping her children mature.

Sometimes recruiting a class has been difficult. The United Planning Organization's Neighborhood Development Centers have been charged with the responsibility of recruiting students. We began with the three centers within the Model School Division. Neighborhood workers from these centers are indigenous and theoretically would be the best to reach the people we wish to service. One center recruited a good class within a week but the attempts of the others have aborted. We have scheduled and rescheduled meetings of teachers and students. At this time one of the centers has not been able to recruit a class.

The easiest classes to begin were in St. Elizabeth's Hospital, our federal mental institution. The Washington Literacy Council had given Laubach workshops to the professional and volunteer staffs under the auspices of the Occupational Rehabilitation Service at St. Elizabeth's and patients had been receiving reading instruction from the staff. Now they were ready for other subject matter and came willingly for group instruction. In addition, we have classes for hospital employees and for patients in the maximum security service.

We determine level of reading informally at first. We use the Harris inventory, a part of the Office of Education's curriculum guide for intermediate level. We give the Gates Reading Tests and we plan retesting near the end of June, adding the California Achievement battery of tests in order to include other skills.

Laubach materials, *Building Your Language Power, Going Forward,* and *A Door Opens* are used in succeeding levels.

In addition some of the classes use *Reader's Digest Skill Builders* and others the skill building series published by Loft. All the classes use *News For You* published by The New Readers Press. We would not be without this weekly paper. The local newspapers are also used.

One of the basic principles we follow is teaching the student what he wants to learn. One class unanimously agreed that they needed to read their Bibles better in order to participate in their church study program. In that class the teacher takes a portion of each session to help them read their Bibles. One Negro pastor came to me with a plea, "I must learn to read my Bible better." Until then he had put in a word which he thought sounded right when he came to one he could not read. But his church had been received into a white association and he felt he could no longer get by with his reading skills.

Henry P. Smith and Emerald V. Dechant in their *Psychology in Teaching Reading* (page 44) define reading as "the perception of graphic symbols. It is the process of relating graphic symbols to the reader's fund of experience."

I think this definition should cause us to pause again and again when we began asking our readers questions. Perhaps too many of us are still asking, "What meaning did you get from the word, the sentence, the paragraph, story, or book you read?" Maybe we should be asking instead, "What meaning do you *bring* to the printed page?" Too frequently, we present the stimulus of the printed symbol and expect the response of meaning relating to that symbol. We forget all about the intervening organism, the reader.

We feel that in the teaching of reading we must emphasize the nature of the reader. We begin to teach reading by a study of our student, the new reader. Who is he? Where does he live? What have been his life experiences? What are his aspirations? His goals? His dreams? What kind of people surround him? How does he get along in this world? One of my favorite questions is "What can I teach you tonight that you need to use tomorrow morning?"

Then out of a pocket come order blanks, a menu, a list of car parts, a test for a driving license, an application form, or a contract. For others, tomorrow morning is secure and taken care of. Life is moving along all right but there is the day after tomorrow. Here is the student who does not have to struggle to hang on to what he has but who wants to move up the economic scale or the educational ladder. His demands are not so immediate but none the less are extremely important to him.

Or here is one who is just tired of being "ignorant," who does not understand the news on TV, who hesitates to participate in the life of the community, who cannot enter into conversation with his neighbors or with his children.

Each of these needs is different and must be met by the teacher. The skill is individualizing instruction in a group setting. This range is one of the reasons we have such a high ratio of teachers, aides, and volunteers in a group which may begin with as few as five and not grow to more than fifteen. There is need for each member of the team. We have tried to provide for individual tutoring during class time, for meeting both immediate and longer range goals as they are revealed by the students.

Another feature of our pilot project is to prepare materials suitable for our students. To that end our teachers have been divided into sub-groups to prepare appropriate lessons to meet needs of students, to add content in citizenship and consumer education and lessons in Negro history.

Our pilot project aims to be a dynamic program, changing and adapting to meet the needs of the people we serve. The content of our classes then becomes the vehicle upon which ride the skills of reading, writing, and arithmetic.

Prior to September, 1966, the teachers will recommend those students from their classes whom they feel are ready for the eighth grade examination. After successfully passing this examination, our basic students may be admitted to the Adult Education High School for whatever additional courses they may wish to take.

This, then, is adult basic education in Washington, D. C.

3. The Texas Adult Basic Education Program

J. B. ADAIR
Texas Education Agency

A Study of the Needs in the State

THE CURRENT EFFORT to develop a program of Adult Basic Education started with a state-wide survey in September 1963. The Texas Education Agency was asked to coordinate this study, to publish the findings, and to make recommendations for a program of Adult Basic Education.

The study of the undereducated in Texas was conducted by examining census reports, county reports, labor reports, and reports from the Texas Employment Commission; by sending questionnaires to selected groups; and by interviews. The results were published in September 1964 under the title, *A Study of Illiteracy in Texas As Related to Vocational Education (1)*. Recommendations were made to the State Board of Education which in turn made recommendations to the 59th Legislature meeting during 1965. These recommendations included a request for limited funds to initiate the program. The State Legislature did not appropriate funds for the program.

Summary of the Findings of the Study

1. There are more than 700,000 adults, 25 years of age or older with less than a 5th grade education.
2. There are 128,000 migrants in the state, of which 95,000 leave the state for employment each year.
3. There are 241,000 registered aliens in the state, 204,832 of whom are Mexican aliens. About 5,000 are naturalized each year. There are 20,000 legal entries into the state each year.
4. The Study further identified the extent of illiteracy in the ethnic groups. There are almost 5 million Anglo-Americans in Texas, 850,000 Latin-Americans, and 779,000 Non-Whites. Thirty-eight per cent of the Latin Americans, 19 per cent of the Non-Whites, and 5 per cent of the Anglos have less than a 5th grade education. However, almost 101,000 or ⅓ of the illiterate Anglos are over the age of 64.
5. The study showed an interesting relationship between the medium school year completed and the average family income for counties with a population having less than a 6th grade education. For each year of schooling the average family income was increased by almost $500 per family.
6. There was also a high positive correlation between grade level completed and the number of inmates in the Texas Department of Corrections over a 10 year period. More than 75 per cent of the inmates in Texas have less than an 8th grade education.
7. Distribution of illiteracy on a percentage basis in Texas counties: Nine counties have an illiteracy rate of more than 20 per cent. A large number have between 10 and 20 per cent. The highest percentage concentration of illiteracy is along the Rio Grande River and the extreme southern section of the state. One-third of the total illiterates in the state are clustered along the Mexico-U. S. border. One-half of the functional illiterates in the state live in the 21 metropolitan areas of the state *(1)*.

Preparation to Launch the Program

The program of Adult Basic Education was made possible through funds from the Economic Opportunity Act of 1964, Title II-B. A State Plan for Adult Basic Education was developed using the preliminary guide sent by the U. S. Office of Education. With the help of Dean Travelstead of the University of New Mexico, and Roy Minnis of the U. S. Office of Education, we were able to submit our State Plan early in 1965. It was approved in March, 1965.

The Texas Education Agency wrote a State Guide for school administrators to use in writing proposals for programs. More than 1,300 copies of this guide were sent to the Superintendent of Schools throughout the state during the last week of May.

Special preparation and orientation was given to our staff of Adult Basic Education and the staff of Civil Defense Adult Education, as these two programs were united under my direction. Members of the staff of Civil Defense Adult Education served as consultants in both Civil

Defense and Adult Basic Education. Four persons from Texas were sent to attend the Teacher-Training Workshop at the University of New Mexico during the first two weeks of June, 1965.

Procedures were developed to train the teachers of Adult Basic Education in Teacher-Training Institutes in the local communities. The Texas Education Agency staff planned Teacher-Training Institutes which would give the prospective teachers orientation for the program.

Field Services to Schools and Teachers

The publication, *Guide for Public Educational Agencies in Planning and Conducting Adult Basic Education Programs,* was sent during the last week of May to every Superintendent of Schools in the State. A letter from the Commissioner of Education announced the new program of Adult Basic Education which was funded under Title II-B of the Economic Opportunity Act of 1964.

Our five consultants called upon the superintendents of public schools and presidents of community colleges to explain the program and to offer their assistance in helping to develop and write their proposals.

Texas Education Agency consultants gave instructions on how to make surveys to identify the number of adults in their communities and how to recruit them in programs. They were given advice on how to involve the total community resources in the promotion of the program. The superintendents were encouraged to contact community action groups, literacy councils, welfare agencies, church groups, Texas Employment Commission Offices, and other groups to help develop and promote a community-wide attack upon illiteracy.

Texas Education Agency consultants spent the summer of 1965 with superintendents and community leaders planning programs and writing proposals. This on-the-spot assistance helped to get our program off to an early start.

The Adult Basic Education consultants moved into the Lower Rio Grande Valley along the U. S.-Mexico border to initiate the first programs. The educators in this area responded enthusiastically. Six Teacher-Training Institutes were conducted in the valley during the summer and early fall.

The Texas Education Agency staff scheduled two-day training workshops for teachers and administrators. These workshops gave instruction in

a. the purposes and organization of the Adult Basic Education Program;

b. the social and psychological needs of undereducated adults;

c. the psychology of teaching adults;

d. teaching methods—this included methods of teaching the basic skills—reading, writing, and computation;

e. an acquaintance with available literature and instructional materials;

f. motivation and recruitment;

g. procedures of reporting class organization and evaluative procedures.

Workshops were also conducted in metropolitan areas, such as Houston, Dallas, Ft. Worth, and San Antonio.

Only two small programs were started during the summer of 1965, as most of the school administrators were interested in organizing the classes in September, October, and November.

The first programs were started in the valley area where there was a high concentration of Mexican-American adults. The response was overwhelming and frightening from the first night. Almost without exception the enrollment was two to three times larger than had been anticipated. For instance, Brownsville, Texas, expected to enroll about 600 adults. Their final enrollment reached 1,600. Houston contracted for 100 classes in their initial proposal. On the night of enrollment 2,500 Negroes turned up in one area to enroll in the classes. Their program finally reached an enrollment of 5270. El Paso, at the extreme west tip of Texas on the border of Mexico and New Mexico, planned classes for 1,600 and enrolled 3,500. In four months—September, October, November, and December—more than 40,000 were enrolled. The present enrollment has reached 55,000 in 125 public schools and three community colleges. Presently we have one or more classes in 72 counties. Since there are 254 counties in Texas, there are one or more programs in about one quarter of the counties in the state. These 72 counties, however, are the counties with the largest concentration of people. They encompass a population of more than 6 million of the total population of approximately 10 million for the whole state.

A Look Back and a Look Forward

There are a number of factors that may have contributed to the high enrollment of adults in our program.

1. The climate was favorable for a program of Adult Basic Education. Thousands of adults have been anxious to learn to speak and to read the English language.
2. The school administrators had been aware of the problem through repeated appeals from the Governor of the state and from the emphasis given by the Commissioner of Education, J. W. Edgar, and the Assistant Commissioner for Vocational Education, M. A. Browning.
3. The *Study of Illiteracy in Texas as Related to Vocational Education* helped to identify more clearly the areas of need.
4. Voluntary groups had worked throughout the state for a number of years to help create an interest in adult illiteracy.
5. The Adult Basic Education staff made up of consultants from the program of Civil Defense Adult Education knew the state. They were acquainted with the school administrators and knew how to approach them directly.
6. The Adult Basic Education staff gave much time to help school administrators and leaders develop proposals.
7. The Adult Basic Education staff urged schools to work closely with community groups and to form strong Advisory Committees to carry the story to the community.

A Look at the Enrollment in the Program

1. The program has reached three major ethnic groups. Obviously, the largest concentration is in the Mexican-American. However, large enrollments among the Negro population have been seen in the larger metropolitan areas. But there is a large section of East Texas which has a large Negro population in smaller communities that has not been reached.
2. The first thrust may not have reached the hard-core illiterates.
3. Enrollment in the first and second levels has been higher than in the upper level.
4. Attendance has been good and dropouts have been low, contrary to what most people expected.
5. Three community colleges are working with groups in their communities.

A Look at the Future

1. Interest has been tremendous among the adults in the state. There are approximately 55,000 presently enrolled.
2. School administrators throughout the state enthusiastically support the program.
3. The steady flow of Mexican aliens into this state will continue to create a need for Adult Basic Education as many of these do not speak, read, or write the English language.
4. The large migrant population (128,000) will need Adult Basic Education.

Needs To Be Met

1. Develop a new breed of educators —Adult Educators.
2. Develop a strong program of teacher-training in cooperation with Texas colleges and universities with emphasis on training "Teacher-Trainers."
3. Develop interest and support for professional adult organizations such as Adult Education Association and NAPSAE.
4. Develop cooperation and communication among OEO, Welfare Agencies, and other community organizations in developing programs.
5. Develop ways of providing vocational training for undereducated adults.
6. Develop a number of pilot programs to study different methods of teaching.
7. Develop a curriculum center to experiment and develop curriculum material for the total education of the undereducated adults.

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D3. MATERIALS AND METHODS

1. Instructional Materials for Adult Basic Education and Literacy Training

EDWIN H. SMITH
Florida State University

THE NATIONAL government's concern with literacy education for our native born adults has tended to follow a crisis pattern. World War I saw campaigns to eradicate illiteracy (a silly or naive aim). The Great Depression resulted in literacy training in the CCC camps. World War II saw the reluctant development of Armed Forces Literacy Classes. All of these efforts were dropped as the crisis passed. Now we are involved in the crisis of the revolt of the undereducated, many of whom are functionally illiterate.

The history of Literacy Education for the foreign born indicates that the training was primarily concerned with *preparation for citizenship*. The new approach to teaching the native born illiterate has as its primary goal the *development of better citizens*. The programs have as their aim the development of the skills that are fundamental to full participation in the Great Society. The goals thus set are far broader than merely learning to read and write at a minimal level. They include the attainment of the ability to read materials written for the general adult public, the mastery of the basic mathematics skills, and the learnings or the general knowledge needed for the utilization of the resources available for self and community development. We have moved from Literacy Education to Adult Basic Education.

To understand how greatly Adult Basic Education diverges from even recent literacy education we can look at one of the contemporary campaigns to teach people to read—Operation Alphabet, the TV series that has been so widely used. As with other such projects, emphasis is on learning to read. The method is (due to the medium used) a lock-step approach. By the time (projected by the developers) a person reached a grade three reading ability level he had not, in the program, been exposed to a systematic curriculum other than one designed to teach the reading skills. Operation Alphabet has value, but it does not adequately develop the curriculum content proposed for Adult Basic Education. This is not meant to be a negative note. The demand for such a curriculum is new—as is the market. But if we are agreed that the General Knowledge Area should be systematically developed, it seems that materials such as packaged programs must be developed. To rely on a teacher, usually untrained in adult basic education, to select such materials is unrealistic in terms of his training, his materials budget, and so often his part time involvement in the program. At the time of this writing no single source provided reading materials that were flexible enough, complete enough, or well enough correlated to provide an even development of such curriculum content.

Adult Basic Education (or Fundamental Adult Education) is pretty well defined by the act that has provided the funds, and thus the stimuli, for its presently rapid growth. In essence it is education designed to bring the adult's reading and mathematical skills up to a junior high school level and to provide him with the general knowledge needed to effectively use the resources available to most Americans. As the law is written, and in the spirit with which monies are distributed, it is assumed that Adult Basic Education teachers will use reading to teach occupational orientation, consumer education, basic legal concepts, civic responsibilities, personal and community development, awareness and utilization of cultural sources, basic science concepts, and attitudes conducive to life in our democracy.

The expansion of the concept of Literacy Education to the concept of Adult Basic Education has brought with it a need for new materials. These are needed to teach the General Knowledge Area of the curriculum as well as the skills of reading and writing. As in elementary school classes, most adult basic education classes contain students with reading levels of one through six. To meet the needs of all the students and to give them essential common learnings to be reenforced and expanded in discussion, the same areas of knowledge should be available on at least five or six reading levels. But readability levels comprise only one of the aspects that must be considered.

The social composition of the classes, differences in learning modality strengths and modes of perceiving should be considered. The students differ greatly within the classes and the classes differ in make-up from class to class. Classes include the unemployed, high school dropouts, foreign born, rural underprivileged, urban underprivileged, persons with poor intellectual potential, and persons with brain injury and specific learning disabilities. Ideally the teacher should have access to materials which promote emphasis of the kinesthetic and auditory modalities according to their strength. He should, particularly with those pupils at level one, have materials that allow him to use a part-to-whole or whole-to-part word learning method with equal facility. Method should be selected in terms of the adult's strengths, weaknesses, and needs. Materials should be available to implement the method so selected.

To take care of the range in classes and between classes a broad range of interests and readability must be allowed for. For most effective teaching, materials should be organized in meaningful segments so that they can be used as needed. All persons should not be expected to move through the same materials at the same rate. Materials appropriate for developing the reading and computational skills are available and are at least adequate. More and more emphasis is being given to what should be a sequential developmental program for teaching the concepts of the General Knowledge Area of Adult Basic Education while developing reading. Such sequential and integrated programs should emerge in the future. The Mott Foundation, as one example, appears to be moving in this direction. At present, materials for the General Knowledge Area must be gathered from widely scattered sources, and often rewritten, in order to even come close to the state curricular objectives. This is too much to expect of part-time teachers.

Perhaps the best way to teach the teacher the content area of adult basic education is to provide him with packaged programs which may be used as a core in his teaching. As he works with the students he will move from the concept of literacy education to the broader one of Adult Basic Education.

Despite the fundamental curricular materials needs that exist, there are many sources of good materials for teaching reading to adults. These sources do cover many of the concepts we wish to develop. There are so many, and in my opinion they vary so widely in quality, that I will review a few for each stage that we considered among the most useful and most flexible. Some have not been developed specifically for adults. But there is little in them that is offensive to adults, and experience indicates that adults react well to them and find them acceptable learning tools. The materials designed for retarded readers in the upper elementary and junior high schools are often far superior to some materials designed specifically for adults. Many of the so-called adult books have been written by persons obviously ill trained in the teaching of reading. The bibliography that follows is made up of those materials that our staff prefers. No one book or kit is sufficient for a total program at any level or any stage. Our center personnel shows no great preference for any one book or kit at the intermediate stage.

ANNOTATED BIBLIOGRAPHY

Materials for the Introductory Stage

Level 1

I Want to Read and Write. Revised Edition. Stech Company, 1964, 128 pp.
Interest level is fair and exercises in basic writing skills are good. The vocabulary control is not good and the rate of introduction of new words is too fast for many students. The exercises meet immediately felt needs of adults. This text should be supplemented with other texts on Level 1.

My Country. Revised Edition. Steck Company, 1964, 96 pp.
The content is social studies, the interest level is fair, and the legibility is excellent. Vocabulary control and the rate of introduction of new words are adequate when supplemented with other materials. The

comprehension exercises and phonic program are adequate. The 1964 revision differs little from the earlier edition.

Operation Alphabet. National Association for Public School Adult Education, 1962, 111 pp.

This text is designed to accompany the Operation Alphabet television course but it may be used independently of the course. Each lesson is self contained and the vocabulary and the rate of introduction of new words are controlled. Writing exercises are included but no provision is made for a phonics program. It should be used as supplementary material or be supplemented by other texts.

Programmed Reading. A Sullivan Associates Program, 1964.

A series in four parts. *Prereading* acquaints students with written symbols, their relationship to the sounds of words and builds a small reading vocabulary. Materials include teacher's guide, programed primer, reading readiness tests, and alphabet and sound symbol cards.

Series I is a basic text for first grade and remedial students. It offers a rapid and pleasant way for children and adults to learn to read and spell English. Materials include seven programed texts, seven storybooks, test booklets, teacher's guide, 29 sound symbol cards, a set of seven filmstrips and a special diagnostic placement test. Vocabulary includes 400 words.

Series II is a basic text for the second grade. It can also be used by advanced first graders and by remedial students. Materials include seven programed texts, seven storybooks, a test booklet, teacher's guide, answer key and a special diagnostic placement test. Vocabulary includes 1,379 words.

Series III is a basic text for third level. Materials include seven programed texts, seven storybooks, a test booklet, teacher's guide, answer key, and a special diagnostic test. Information on vocabulary not available.

Programed Reading as a method of teaching reading has been proven valuable. Series would be better off without filmstrips.

The Mott Basic Language Skills Program, Series 300. Allied Education Council, 1965.

The "total language program" covers readability levels 1 through 12. It is designed for adults but could be used with retarded readers in both junior and senior high school.

Reading 300 deals with materials designed for levels 1 through 3. The word attack approach used stresses phonics. The series provides for the systematic development of word attack, spelling, writing, composition and listening, and understanding skills.

Basic Language 300A. This book provides for initial instruction in reading, writing, and spelling. Initial consonants, vowels, blends, and final endings are included. Many written exercises for the student are included.

Basic Language 300B. Additional instruction on vowel combinations and irregular spellings is presented in this book. Reading selections are included as well as numerous exercises on vowels, reading and writing. Assignments are done by the students in sequence.

Word Bank 300. The book is divided into 12 units. Each unit presents photo vocabulary with the word written in manuscript and cursive. Space is provided for copying sentences using the new words. At the end of each unit is a reading selection using the words previously introduced. Comprehension exercises are included.

Basic Numbers and Money 300. The purpose of this book is to help the students use numbers, handle money, and use newspaper advertisements. There are worksheets for practice examples. Skills introduced in this book are addition, subtraction, simple multiplication, and division examples. Simple word problems provide another type of exercise. At this same level, supplementary reading is provided for by the *Fair Chance Series 300.* The occupational and vocational reading is found under the *Apprentice Series 300.* Titles include: *The Auto Mechanic, The Filling Station Attendant, The Meat Cutter, Polly Looks for a Job, The Road Workers, The Carpenter, Needlecraft 300,* and *Homecraft 300.*

Reading for a Purpose. Educational Opportunities Project, Follett Publishing Co.

A sight-word approach to teaching reading to adults. It is a fairly comprehensive developmental approach beginning with readiness skills and progressing through dictionary skills. The lessons usually follow along the same general format. The style of the elementary basal series approach is generally used. A detailed teacher's guide is included.

Reader's Digest Adult Series. Reader's Digest, 1964-65, 32 pp. each.

A series of twelve books extending from Level 1 to Level 4. The first four books are for Level 1. This series was especially designed for adults and adolescents. The books have a high interest level, appearance is similar to the regular *Reader's Digest,* legibility is excellent, and the subject matter is articles from the *Reader's Digest.* Exercises for the development of comprehension and vocabulary are included and the teacher's manual for the series contains helpful suggestions. The series should be supplemented with other books in the *Digest* series.

Reader's Digest Skill Builder, Grade 1, Parts I and II. Reader's Digest, 1963, 64 pp.

Part of a series which extends through Level 8. The content is articles from the Reader's Digest. Legibility is good, interest level is high, and the vocabulary and comprehension program is good. The teacher's manual offers practical suggestions for use of the series.

SRA Reading Laboratories, Science Research Associates.
The SRA reading laboratories suitable for the introductory stage of reading include Reading Laboratory I, Ia, 1b, and 1c and the older, but not out-moded, Elementary Edition (1958). The laboratories contain many articles as separate items which are grouped according to readability level. They are suitable for adults and are a great boon to the teacher who is teaching students at various levels of reading. Teacher's manuals are complete in every detail and lessons are designed so that much of the learning is self-instruction. The laboratories should be supplemented with vocabulary development materials.

Level 2

News for You, The Adult Newsletter. New Reader Press, Edition A.
This four page newspaper for literacy classes comes with a teacher's guide. It contains photographs, feature articles and news items. Edition A is written at readability level 2-3.

Level 3

The Job Ahead: New Rochester Occupational Reading Series, Level I. Science Research Associates, 1963, 169 pp.
This series, written on three different readability levels (Levels 3, 4, and 5), does not use the same story content as the original Rochester Occupational Reading Series. Each book contains the same stories written on different readability levels. Thus, three different groups can deal with the same material. The materials are highly interesting to adolescents and adults. The accompanying workbooks can be used to build both vocabulary and comprehension skills. They should be supplemented.

Reader's Digest Adult Education Readers, Books A and B. Reader's Digest, 1954, 128 pp. each.
Adult appearance and adult interest level. Exercises for developing vocabulary and comprehension skills are excellent. These books may be used as basic texts at this level or as supplementary aids. The books were designed by adult educators for adult use.

Reader's Digest Readings: English as a Second Language, Books 1 and 2. New York: Reader's Digest Educational Division, 1964, 144 pp.
This is a new series of six books designed for teaching the foreign born to read the English language. The articles are from the Reader's Digest and are of high interest to adults. The books contain exercises for building vocabulary and comprehension skills. They will prove useful with both foreign and native born students.

Reader's Digest Science Reader, Grade 3. Reader's Digest, 1963, 128 pp.
This is one of a series of four books which are designed for reading Levels 3, 4, 5, and 6. Appearance, interest level, and legibility are high, an excellent supplementary book for each of the levels for which it was designed. It will prove of value both in developing reading skills and building the general knowledge area of adult fundamental education.

Materials for the Elementary Stage

Level 4

Achieving Reading Skills. Globe Book Company, Inc., 1958, 245 pp.
The various reading skills are handled on several levels of readability. The materials are arranged in order of difficulty extending from the third grade readability level to about the sixth grade level. It has been used extensively with adults and adolescents.

EDL Study Skills-Library for Reference. Educational Development Laboratories, 1962.
Organized like the other EDL packaged programs, this program teaches the use of reference skills and places great stress on critical reading.

EDL Study Skills-Library for Science. Educational Development Laboratories, 1962.
This packaged program contains individual lessons in science for reading Levels 4 through 9. These self-correcting lessons develop the principal comprehension skills and also contribute to vocabulary growth. They are of proven worth in teaching reading to adolescents and adults and are a great aid in individualizing reading instruction.

EDL Study Skills-Library for Social Studies. Educational Development Laboratories, 1962.
This packaged program is similar to the *EDL Study Skills-Library for Science*, except that the content is social studies.

Gates-Peardon Reading Exercises: 1963 Edition, Elementary and Intermediate. Bureau of Publications, Teachers College, Columbia University Press, 1963, 62 pp.
Although not designed for adults, the books in this series are acceptable to them for the interest level is high. There are six books suitable for use at the elementary stage. Three have a readability of about grade four and three have a readability of about grade five. The books separately treat reading for the main idea (Type SA), reading for details (Type RD), and reading to follow directions (Type FD). This series should be used for corrective work in specific comprehension weaknesses.

New Practice Readers. Webster Publishing Company, 1960, 144 pp.
A series of workbook type exercises which present lessons in three parts. There are questions to prepare for the reading and a comprehension check. Some work in vocabulary is offered. While not designed for adults the series should be acceptable to them. Books A, B, and C are for readability levels of grades four, five, and six.

Reading for Meaning. J. B. Lippincott Company, 1962, 72 pp.

An excellent series to use for developing comprehension techniques. While not designed for adults, the format and content are acceptable to them. Vocabulary development is worked into the selections in an interesting way. This series has proven to have great value in teaching both adolescents and adults. There are books for readability Levels 4, 5, 6, 7, and 8.

Standard Test Lessons in Reading, Book D. Bureau of Publications, Teachers College, Columbia University Press, 1961, 78 pp.
This is one of a series of high interest comprehension-building books that are designed to build reading power and speed. Books in this series may be used as self-teaching devices.

Turner-Livingston Reading Series. Follett Publishing Co., 1964, 48 pp.
This well-constructed series deals with such topics as citizenship, economics, and the general social studies. It is designed for adolescents and adults and will prove valuable in adult basic education classes, both in developing reading skills and reenforcing subject matter learnings. It should be supplemented or perhaps be best used as a supplement to other books for developing reading skills. Some of the books in the series are *The Person You Are, The Money You Spend*, and *The Town You Live in*.

Using the Context, Barnell-Loft, 1962, 52 pp.
A series of three books for Levels 4, 5, and 6. This series develops skill in developing vocabulary and comprehension skills through the use of the context clue. Acceptable to adults and an excellent supplementary drill book.

Level 5

Building Reading Confidence. C. S. Hammond Company, 1964, 220 pp.
Can be used as a basal text as it covers most of the reading skills needed at this level. Joseph Gainsberry is well known for his corrective reading books for adolescents. A fairly complete text.

Effective Reading. Globe Book Company, 1953, 214 pp.
This text is designed to teach the various reading skills. The exercises are good and the interest level is fair to good. It offers specific help in developing study type reading skills.

Successful Reading. Globe Book Co., 1953, 210 pp.
This book, developed for corrective work in junior and senior high schools, is still one of the better books for teaching adults specific vocabulary and comprehension skills. The exercises are well constructed and the readings are acceptable to adults.

Spelling Word Power Laboratory, IIB (Revised), Science Research Associates.
This kit includes many exercises for studying sounds and how words are put together. Vowels, consonants, abbreviations, contractions, plurals, homonyms, and difficult words are presented in the form of learning wheels. The students may find questions by turning a wheel and answers by another turn of the wheel, hence immediate reinforcement. A variety of check tests, spelling key cards, a student record book, and a teacher's handbook are included.

Level 6

Better Reading. Globe Book Company, 1962, 447 pp.
This is an excellent book for both adolescents and adults. The exercises in comprehension and vocabulary are well constructed and the content is acceptable to adults. Very little supplementary instructional material will be needed when this book is used as the basic text.

Teen-Age Tales. D. C. Heath and Company, 1954-59.
Six books of high interest for adolescents. Each book contains a collection of short stories concerned with teen-age sub-culture. Not recommended for older adults or disadvantaged persons.

Materials for the Intermediate Stage

Level 7

Be a Better Reader, Book 1. Prentice-Hall, 1963, 128 pp.
A relatively complete text for teaching comprehension and vocabulary skills on the seventh grade level. While developed for adolescents, it has proven effective with adults. Interest level is high and study type reading is stressed. This series extends through the high school levels.

Help Yourself to Improve Your Reading, Part I. Reader's Digest, 1962, 160 pp.
As with other Digest offerings the material is adult in nature and of high interest level. The source of readings is Reader's Digest. Vocabulary and comprehension exercises are sound and the book is designed so that it may be used as a self-help book by students whose reading is sixth or seventh grade level.

Lessons for Self-Instruction in Basic Skills: Reading Interpretations I, Series E-F, 160 frames, California Test Bureau.
This programed self-instruction book may be of some value in developing comprehension skills but it suffers from many drawbacks. Recommend for supplementary use only.

Level 8

Test Lessons in Reading-Reasoning. Bureau of Publications, Teachers College, Columbia University Press, 1964, 78 pp.
This text was devised to improve the critical reading and thinking ability of adolescents and adults. It consists of seventy-eight lessons which teach ways of uncovering fallacies in reasoning and give practice in detecting such fallacies. Adults enjoy the exercises and the book makes an excellent supplement to other more general texts.

Words. Science Research Associates, 1962, 224 pp.

A programed text of 2,200 frames in 14 chapters. This text has a real place in adult literacy training. It teaches the student that he can learn on his own and prepares him for self-learning and the use of a type of material that will be best used in the future for on-the-job training. Excellent supplementary material.

2. Relating Methodology to Characteristics of Adult Illiterates

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ONE YEAR AGO at the IRA meeting in Detroit my interest in adult illiteracy led me to attend a meeting dealing with some of the characteristics of adult illiterates. In summing up his comments one of the speakers indicated that he felt it was time to realize that adult illiterates are not different from other adults except in the regard that they cannot read. I suppose the theme of my paper is really that adult illiterates cannot be so simply classified, and that they *do* tend to be significantly different from other populations of adults or, certainly, from populations of beginning first grade children. They *are* different because they are illiterate and because of the effects illiteracy has had on their lives. These effects are profound and far reaching.

In our city core areas there is a great deal of difficulty with the functionally and totally illiterate. It is estimated that in Buffalo, New York, there are 78,000 functionally illiterate adults; and in other urban centers across the nation there are proportionately high numbers of adults who do not have the ability to read and write well enough to handle the simple tasks associated with most occupations.

Educational Characteristics

The adult illiterate in the city core area of Buffalo is a relative newcomer. Over 80 per cent of those in the Basic Education classes had previously lived in the southeastern part of the country, while only one subject had been born in the western New York area. However, it was interesting to find that these students had all lived in Buffalo for at least four years and a major proportion of them had lived in the area for at least ten years. It seems apparent from this finding that although most of them had spent their childhoods elsewhere, they did not immediately apply to the Adult Education Division for help in learning to read and write upon arriving in the western New York area. Apparently it takes some time for them to realize the necessity of these skills in being able to cope with the environment in an urban setting.

Most of the people who were in the basic education classes indicated that they wanted to learn to read in order to get a job or better education. Half of them indicated that they wanted to be able to read the Bible. In asking them to respond to invented book titles, the same sort of utilitarian and religious orientation was demonstrated. Titles such as "Train Yourself for a Better Job" or "The Life of Jesus" were greatly preferred to titles indicating humor such as the title "Jokes and Funny Stories" or simulated basal reader titles. Interestingly enough, one of the titles which they rejected rather completely was "100 Ways to Make Money." It may be hypothesized that such a title might be uninteresting to them because it would indicate active involvement with their environment, which they tend to find distasteful.

They tend to show a lack of experience in interacting with the environment. Although they knew the cost of a phone call, only one-third of them knew how they would go about getting the telephone operator to answer or how they might call for information. Since they cannot use the telephone directory, this means that they are virtually cut off from the use of the telephone, unless someone tells them the number to dial or calls the number for them.

They tended also to be rather limited in the amount of travel they had had. Though most of them had come to Buffalo from distances in excess of 500 miles, they had largely not been out of their immediate neighborhoods since that time, finding considerable difficulty in traveling by bus because of their inability to read the sign indicating where the bus was going, and having difficulty obtaining a driver's license because of their inability to read the driver's manual and to identify the signs of the road necessary to pass the driver's test. There is probably another reason that accounts in part for their lack of travel. They tend not to be very venturesome, but seem to prefer to be where help is available if they need assistance.

They are often quite lacking in knowledge of how to function within their environment, with only a small percentage of them knowing how cold the nonfreezer part of a refrigerator might get or what the call letters of the local television stations might be. They had considerable difficulty with charts and maps, and difficulty telling time or recognizing what time of the day one might eat lunch, or start work, or how a person might go about filing a protest against what he considered to be a poor television program. When they were asked how they were able to find their way to the schools, it was interesting to note that they had developed peculiar cues for determining which streets they were to take.

They are marked by an absence of hostility. As a group, they tended to be cooperative almost to the point of being docile. It seems evident they do not want to "rock the boat" any more than necessary because of the possible painful effects it may have for them personally. They tend to be very dependent on other people. Although they could not differentiate between the local, state, and federal governments, they manifested considerable dependence on "the government" to help them survive.

Their dependence upon others may be assumed to have a direct bearing on their learning ability. Since they have lost some of the ability to fend for themselves, they have become largely non-aggressive because aggression tends to bring somewhat painful consequences and they feel defenseless and unable to protect themselves from any such consequences. Unfortunately, proper learning is built on interaction of a person with his environment, from which they seem to have withdrawn to some extent. They feel little commitment toward learning, just as they feel little commitment toward anything else in their environment. Although they verbalize that they want to learn to read, they realize that this is a rather far-removed goal, and they will be in the process of learning to read for months, or years, before they gain enough ability to be able to handle the requirements of a job. Instruction will need to be aimed at shorter range goals and greater interest in the instruction itself, rather than in the final end of the instruction.

They do not seem to find great interest in the moving social and political events of this day and age. While they are passingly interested in history, they prefer to remain disentangled from the Negroes' current drive for social equality.

Implications for Methods of Instruction

Successful instruction for adult city-core illiterates should be based on the development of a common experiential readiness for instruction. The lack of interaction with their environment causes many of these students not to be ready for beginning reading instruction when they walk through the doorway of the classroom. The teacher should work, through the use of discussion, pictures, displays, films, records, and other means of auditory and visual stimulation to "reawaken" them, as it were, to a learning environment.

Instruction needs to be differentiated on the basis of the abilities of the students. Some students are able to move much more rapidly than others. Even with good instruction, some students make extremely tedious progress, and need a great deal more meaningful repetition of words before they will master them. In Berke's study of adult illiterates in Buffalo, he found that certain factors in the experiential background of these students provided meaningful discrimination between those who did well in learning to read and those who did not. He also found that scores on the Wechsler Adult Intelligence Scale or the Leiter Adult Intelligence Scale did not discriminate between the achievers and nonachievers. Those who *can* learn faster, should be helped to do so and those who need a program based on greater reinforcement should, of course, be placed in groups where this is possible.

The aim of instruction should become thorough learning at each of the instructional steps before moving on to more difficult levels. Too often the reading programs for adult illiterates tend to disregard the need for an unusually flexible program for people who are discouraged and unsure of their learning abilities. Such people, and this includes most of the population of adult illiterates, need to experience a good deal of success at each level of their educational program. This means that there must be a great deal of room for horizontal movement or reinforcement at each level.

Vocabulary needs to be thoroughly introduced to the students before they meet it for reading, and it needs to be words that have a place in the vocabulary of these adults. It tends to be more interesting and beneficial to the adult illiterate to learn words such as *tire, check,* and *pay,* than *toy, rabbit,* and *duck.* Vocabulary needs to be more strictly controlled when used with the adult illiterate than when used with children.

Increased personal involvement in the learning process is necessary. This may be accomplished, in part, by using shorter-term goals. Instruction which carefully integrates learning to read with general occupational learning should increase their commitment to learning. Programed instruction is another means of increasing personal involvement, to some extent. The greatest drawback to the current crop of programed materials is the rapid movement to more difficult levels without adequate reinforcement and learning, so that the student eventually finds himself falling behind. If the teacher will augment the programed instruction with a number of supplementary materials, she will increase the effectiveness of the instruction.

Another means of increasing personal involvement is the production of more materials which use an attractive format which is appealing to adult tastes, based on the social and religious interests of these people. Good instructional programs should capitalize on their interests in historical and Biblical heroes as well as materials on vocations and personal appearance.

Good basic instruction in reading, then, should be built on developing readiness to learn, wide use of discussion as a basis for the words to be learned, then exposure to the words themselves through hearing them, seeing them, writing them, perhaps even tracing them for additional cue strength. Instruction should be differentiated on the basis of the students' abilities to learn, adequate reinforcement should be provided for, and most important, the student must be "trapped" into becoming *involved* in the learning process.

3. Teaching Reading in a Job Training Program

GLADYS ALESI
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TEACHING READING in a job training program involves the development of a total reading program for adults that, in some ways, is similar to the kind of program one would set up in a typical adult education center, particularly one in an area of low class population where one might be serving multi-level readers in a one-room set up. In the typical basic education group we find persons of diverse background who wish to learn to read, to improve their reading or to try the rapid reading program. In the job training program, this is not so. Our trainees are referred by the welfare department, the division of placement, or one of the many community groups which advised that such training would be good for them. The trainees may resent the time spent on reading instruction more than that spent on any other area in the program; however, once they are in the program the necessity to read the trade materials becomes a powerful motivation for them. From that point on it becomes necessary to develop a total reading program with something for everybody and with the course of study culled from appropriate industrial and vocational sources.

Selection of materials must be made on the basis of immediate usefulness to the trainee within his eight-week or twelve-week training program. It has, therefore, become practical to establish a basic recognition vocabulary for each trade and then to prepare reading materials from such lists. No one textbook can be used but only those books that provide practice in reading skills through the discrimination of sounds and those that contain challenging ideas and material.

One essential to the development of a total reading program is the provision of instruction for the beginner as well as for the superior reader who wants to try out rapid reading. Another requirement is, then, a grade-level approach. Within one group of general maintenance trainees recently we found a man who could not read a tabloid seated next to a self-educated merchant seaman who, while at sea, had read all of the Great Books and was now writing verse. A grade-level approach will meet the needs of both; here it is a matter of separate *and* equal opportunity to learn within the job training program.

By way of background, this program provides short intensive training in five different trades where there is a need for workers. These trades are:

Building and Grounds Sanitation
General Maintenance
Heavy Vehicle Driving
Oil Burner Installation and Repair
Air Conditioner Installation and Conversion

Because of the range in requirements for these programs no one is screened out of the program. And no one is ever tested in advance of acceptance. The fear of not making the grade has been eliminated.

We must test, of course. The testing that we need for class placement is minimal. On the day that students begin training they are given orientation which includes a discussion of tests, their purpose and their limitations. The session is adult in tone and trainees are assured that the test score will never be used against them. The test used is the Gates Reading Survey which scores from above third to above tenth grade. Trainees with a foreign language background and little or no schooling—even those who give as an excuse, "I can't see without glasses,"—are placed in level one, or non-English classes. We have found the Gates Reading Survey adequate for our needs. Though intended for children, it is objective, rather than child-oriented. Passages such as the following, make sense in terms of adult experiences.

> All night long, the truck driver sat at the wheel of the trailer truck. He drove along the twisting highway until dawn. How did he feel then?

The tests are scored immediately so that there is no waiting, and placement of trainees is made as follows.

Non-English—cannot understand identification questions in English
Level 1—O to 4.9, Literacy Level
Level 2—5-7.9, Intermediate Level
Level 3—Over 8th, Advanced Level

Literacy Level

Basically, this group includes the men who do not read. They have not learned a sound approach to reading. Some can recognize words and get limited ideas from reading and may have adopted a positive dislike to reading; others may be able to read a little but they say they want to go all the way back to the "ABC's." Both types need basic word attack skills. In addition, they need to recognize trade words and to be able to read ads and applications, notices posted on bulletin boards, accident reports, street signs, rules, operating manuals, etc. How is this accomplished? First, we break down the trade material that must be taught, classifying it by job. In fact, the making of lists and classifications is an important activity of the reading classes. Lists of trade words are taught as sight vocabulary by the whole word method. Then, we develop a sequence of phonics lessons.

Intermediate Level

The program for these students is similar to a corrective reading program. This type of student realizes that he is not an effective reader. Since an important incentive for him is the possibility of getting a high school equivalency diploma, he is interested in the drill activities provided and in timed reading comprehension exercises. He wants to see improvement. By and large, the motivation of this group is the highest and it is not unusual for a student to make a gain of one or two years in just two months.

All of the skills necessary for the mastery of reading in level one are quickly reviewed with reference to the particular trade area. Both oral and silent reading are used. As the student continues the study of trade words, he is given exercises in auditory perception and discrimination. As he gains proficiency, he progresses through the development of word meanings to the analysis of words, roots, prefixes and suffixes. Continuous progress is experienced on vocabulary, comprehension and rate. Through the occasional use of the *New York Times,* the more advanced skills of critical reading are taught.

Advanced Level

Here we emphasize improvement of reading skills so that the trainee can become a superior reader. We frequently tell the story of the late President Kennedy and his rapid reading. Our aim is to help every student achieve his reading potential. Timed materials and a reading pacer (controlled reader) are used.

These materials, in combination with methods of reasoning, principles of logic, and criteria for judging evidence, enable students to apply this knowledge. The following specific skills are developed:

Vocabulary development—structural analysis of words,
Use of the dictionary and trade reference materials (Audels),
Study type reading (using manuals on electricity, etc., provided by the Port of Authority),
Scanning and skimming—getting ideas from trade journals, and
Using table of contents for selective reading in technical publications.

Summary

1. Begin with sight words related to the common reading needs and interests of the men and women with whom you are working. Use a whole word approach before beginning to teach word attack skills.
2. Find out the particular motivation of each adult in your class and work on it. Make the most of these special needs.
3. In many adult education programs, guidance is not provided by a counselor. The reading instructor may be the counselor. Be ready with help and information on referrals by keeping up to date on vocational and educational opportunities available in your community. Give help and empathy but don't become involved in personal problems to the extent that reading instruction is neglected.
4. Use many approaches. Keep up to date on the latest techniques and materials. Get your name on the mailing lists of publishers who send out newsletters.
5. Set up a library table of appropriate materials—recreational as well as trade materials, slick magazines, newspapers, even the tabloids. (We have had considerable success with the *New York Daily News.*) Take the time to point out some interesting articles, too.
6. Praise student's progress in terms of his goals.

To make these tips even more basic, we may use the mnemonic device READ.

*R*espond sensitively to student needs and interests;
*E*valuate yourself regularly in terms of student accomplishment;
*A*ccord every student the dignity that you expect; and, thereby,
*D*emonstrate democracy in your adult education classroom.

And THEY will read!

In conclusion, let me say that in a job training program it is both feasible and practical to establish a total reading program within the framework of vocational education. It is an efficient way of teaching reading regardless of the level of skills trainees possess when they enter the program.

D4. INSTITUTIONAL ROLES

1. A Job Corps Center Program for Teaching Young Male Adults to Read Effectively

WILLIAM T. HOLDER
Southern Illinois University

The Profile

HE IS 17, UNEMPLOYED and looking for work.

He has finished ninth grade and has been out of school 11 months.

He has less than a sixth grade reading and arithmetic achievement level.

He comes from a family of six, which lives in crowded, substandard housing and his parents are unemployed or hold unskilled jobs.

This is the profile of the average Job Corpsman, on the basis of an analysis of the first 1,000 young men 16 through 21 who are now enrolled in the voluntary program, a major youth program in the War on Poverty.

The study of the first Job Corpsman reveals the following facts about their lives: Nearly half had completed either the eighth grade (23.1%) or ninth grade (24.4%), with the median at 3.9. Of the 9.2% who had completed high school, more than 58% tried to enter the armed forces but only 11.3% had been accepted.

Twenty-nine per cent had been out of school six months or less; 24.9% between six months and a year; 22.9% between one and two years; 13.1% between two and three years; 10.1% three or more years.

The median reading level was at the sixth grade, with 7.7% below a third grade level and 27.5% above eighth grade levels.

Only 50 of these enrollees had jobs when they came into the Job Corps. Nearly half of them were working about 28 hours a week as laborers, making an average of 85 cents an hour or $22.40 a week. Only half of them had been employed four or more months.

Among the other occupations they held were dishwasher, peddler, bootblack, usher, busboy, or dairy worker.

The mean size of the family from which the Corpsmen came is 5.73 persons; 17.7% of the Corpsmen are from families of 9 persons.

More than 62% of the enrollees come from homes in substandard condition; 40% from homes in which a parent is seriously ill; 64.6% from families in which the primary wage earner is unemployed; 39.8% from families on relief; 54.2% from overcrowded homes; 74.5% from families in which parents hold unskilled jobs; 51.3% from families in which both parents have less than an eighth grade education.

Fewer than 2.5% of the enrollees have a record of serious offenses; 5.7% have a record of some anti-social behavior such as petty theft and vandalism; 53.1% have no police record and no record of misconduct in school.

Ronnie

Ronnie's credentials are genuine. He was spawned in the rough world of drifters, beach bums, bars, and carnival barkers. But if the first eighteen years of his life were rough, the last one has made it all worthwhile.

"I'm a high school graduate now and I've got six quarter-hours of college credit. I'm going to finish my electronics training, go into the air force, and then come back to college," stated Ronnie, surveying a new world from the front steps of his dormitory.

Life began tough for this young man. His parents were divorced shortly after his birth. For several years, he and his mother lived with his uncle on a farm. When he was six, his mother remarried and moved to California. Ronnie and his stepfather never got along very well.

"From the time I was eleven," he said, "I had real bad scenes with him and my mother. I guess I was looking for a little attention, and there wasn't much around."

"I guess I was difficult, I ran around with a wild bunch, and I really hated school—the regimentation and everything."

Naturally, Ronnie wound up in a

school for wayward boys. Although he ran away several times, he calls his staying the first turning point of life. He began to get along. One year later, at the age of fourteen, he won out. He had completed the eighth grade—his last formal education.

At fifteen he went aboard a tanker but jumped ship because of the regimentation. The next two years were spent in drifting—Arizona, Colorado, Kansas, Illinois, Kentucky—and evading the law. Then the Job Corps.

Demanding curriculum, obsolete teaching techniques, rejecting attitudes of Ronnie's instructors and a disturbing family situation had not permitted the development of his potential abilities.

The Job Corps had been given the magnanimous task of reversing the existing debilitating effects. The challenge was urgent. The solution? As Nila Banton Smith has stated, "The key solution most frequently proposed for solving the problems that are currently plaguing humanity is education and reading is basic to education."

Instruction

Better reading instruction for the young male adult is dependent upon the selection of instructional materials geared to his readiness, the understanding of the existing task before additional tasks are introduced to present increased frustrations and resentments and the use of structured materials to facilitate sequential learning of new skills.

The instructional materials selected must be concerned with the needs, the doubts, the worries and the hopes of the young adult in relationship with his life situation—group living, appearance, education, job opportunities and securing employment, courtship and marriage, and the military.

Effective materials must permit the learners to read, to write, to speak, and to listen in their own language. When they hear their idols speak—whether it be President Johnson, James Baldwin, Cassius Clay, Martin Luther King or Will Smith—it is most apparent that they do not speak in the tones of Miss Social Prestige.

A lesson reproduced from L. E. Raths, M. Hamrin and S. B. Simon, *Values and Teaching*, Charles E. Merrill Books, 1966, p. 100, has potentialities for meeting the previously mentioned criteria for an effective reading lesson.

HOME OF THE BRAVE?

> "I used to be an idealist. When there was a picket line, I would picket. When there was a sitdown, I would sit. When there was a demonstration, I would demonstrate. I sat for two days in front of a store that wouldn't hire 'minority type' people—I felt that they should have a fair chance in the land of opportunity, that all men are created equal. They told me to go to Russia. I was born in Brooklyn!
>
> Then there was the time I marched around the U. N. and handed out leaflets saying that we shouldn't use bombs to kill each other, and that man should study war no more. They called me an atheist! Once I was arrested for going into a school with a sign saying that all children are entitled to an equal opportunity to education, like the Supreme Court says the Constitution means. They called me a Communist!
>
> Soon I got tired of being called all these names, so I gave up. I don't care if half of them starve. I don't care if they don't all get educated. I don't care if they kill each other with bombs. I don't care if their babies die from radiation. Now I'm a good American."

The statements are short, concise and direct. The selection is attuned to current problems, and instruction can be centered on the development of basic reading skills.

Most assuredly skill in reading is developed through encounters with print, but teachers of young adults must realize that they respond differently to various kinds of resources. Textbooks and workbooks do not contain all of the data needed for the skill development, for such development is dependent upon the use of many resources. In other words, there are those learners who are more ear- than eye-minded. Television—sportcasts, news commentary, special features—provides opportunities for the development of not only good listening patterns, but also the framework for the development of adequate reading skills. A small group of learners were asked to view a short television program and jot down unfamiliar words, names or places. The vocabulary list was reproduced and returned to the group. Individuals were asked to examine the newspaper to identify the words; consequently, a new vocabulary was presented in context, explained in isolation, and practiced and understood in a functional situation.

Young male adults want to become economically capable and socially responsible. They want the opportunity to acquire a marketable skill. Such desires permit teachers to move rapidly toward reversing the previously mentioned debilitating effects and to concentrate on teaching them as effectively as possible. Primary aims and objectives must entail creative and experimental efforts. It is necessary to develop motivational materials and to provide individuals of varying socio-economic, cultural, and ethnic background with a variety of stimulating learning experiences which will aid them in their communicative efforts in their chosen vocations. This instructional program must establish close functional relationships with vocational interest or the world of work. To subject them to anything else would be educationally futile. Instructional materials must make sense and the young adults must see purpose in the learning.

The following exercise was developed by a student assistant who was familiar with the experiences and interest of his peers.

Exercise #1

"Read through the following exercises and underline the main idea in each of the paragraphs.

For Example:

A Shell service station has a large yellow seashell for its symbol or "trademark." Texaco uses a flying red horse. *Each oil company has its own symbol to identify it.*

In the above paragraph, the main idea is the last sentence since it sums up or tells what the other sentences are saying. It should be underlined.

REMEMBER: THE MAIN IDEA OF A PARAGRAPH CAN COME AT THE BEGINNING, AT THE END, OR SOMEWHERE IN BETWEEN.

Exercise #1

1. A service station attendant does more than just pump gasoline. He makes minor repairs on automobiles. He sells and installs tires, batteries, and other parts. He keeps station records. And, most important, he is a courteous and efficient salesman for the service station.
2. Some people get jobs in service stations by applying directly to the station where they want to work. Some others get their jobs from the want-ads in the newspapers. Still others find service station jobs by applying at their State Unemployment Bureau. There is more than one way to get a job as a service station attendant.
3. Most people know about the man who pumps gas at the corner service station. They see him every day. But there are other places where a trained service station attendant can find a job. There are the service garages of the Federal Government. There are the large transportation companies with their fleets of cars and trucks to take care of. Finally, there are the large city parking lots which need trained attendants.
4. Not everyone can be a service station attendant. He must be able to work with his hands. He must be courteous, neat, and alert. He must be a good salesman. And, above all, he must be reliable. All of these things are necessary for a service station attendant.
5. Many service station attendants earn one dollar per hour to start. With experience, they may earn two dollars per hour. Some attendants even receive a commission on sales that they make. A manager of a service station can earn around six thousand dollars per year. The salaries of all service station attendants are not the same.
6. A service station attendant works many different hours. Usually he works between forty and sixty hours each week. Many times, he has to work on Saturday or Sunday. He often has to work nights too. A service station attendant may not always work an eight hour day."

Desirable reading instruction for young male adults must encourage good work habits and attitudes; help acquire skills needed in the use of tools, equipment and materials needed in various occupations; train for profitable employment in a specific career; direct each student to enter that career and find continued success; and help the individual to achieve his goals.

Many factors have contributed to the unfortunate development of young adults like Ronnie—a culturally deprived home, lack of newspapers and books, absence of meaningful conversation, little corrective feedback regarding speech habits and reading habits, lack of association with reading adults; nevertheless, further encouragement to strive for vocational goals, intensive counseling, and stimulating and challenging materials will produce faster and better reading results.

2. College and University Roles in Adult Basic Education

ROY B. MINNIS
U. S. Office of Education

FOUR MAJOR ROLES have evolved during the past year and one-half for which solutions to problems can be reached through the development of a major commitment by colleges and universities. By utilizing the term "major commitment," I do not in any way wish to leave the impression that the total responsibility for the functions I cite should be exclusively that of college and university personnel.

The functions are: (1) training teachers, teacher aides, counselors, recruiters, administrators, supervisors and other leaders; (2) conducting demonstration projects; (3) preparing instructional materials, and (4) doing research. The colleges and universities may well develop other competencies and provide resources in other areas of service to the program, but in my judgment these are the functions which must have concentrated and priority application through use of the unique resources available in our better colleges and universities. Those institutions of higher education without present adult basic education resources must develop such competencies if maximum and orderly development in the program of adult basic education is accomplished.

The role of teacher-training and development of educational leadership has been historically one for the colleges and universities. It is often shared organizationally within the institution by the college or department of education and the extension division. Until recently, only two universities had done comprehensive planning and developed operational programs in the training of elementary teachers for adults. Since the Federal operational funds became available, about thirty such institutions have inaugurated programs with varying levels of concern for how the task can best be accomplished. Because of the limited attention which had been given to the training of elementary level teachers for adults by institutions of higher education and since no funds were available to train the needed staff for the training programs, over a year ago a partnership was developed between the U.S. Office of Education, the National Association of Public School Adult Education, the Ford Foundation, and eight major universities to plan and operate three summer institutes to train trainers who in turn could be committed and strategically placed to train teachers and other leaders for the adult basic education program. This partnership possessed the possible complications of a potentate with a harem. (The Ford Foundation was the potentate; the harem, the meshing of the agreements for sponsorship, cooperatively choosing staff personnel, determining locations, selection of participants.) With only three such workshops for the training of trainers for a new Federally funded state grant program, it became exceedingly important that two major criteria be observed: (1) participants selected for the institutes be capable and have the time and resources to conduct the teacher training and (2) each be acceptable by the operators of the programs, the state and local education agencies. For the long-range potential, colleges and universities were urged to identify and select faculty personnel to both participate and staff the workshops. The three training programs for trainers were conducted in June, July and August at the University of New Mexico, University of Maryland, and the University of Washington. Paradoxically, the major resource and faculty members for each workshop were local school system teachers, supervisors, and administrators. They were about the only persons with empirical knowledge about adult basic education programs. The college and university and state departments of education personnel were commonly the participants. Slightly over 150 persons received a beginning preparation to become trainers during the two weeks of involvement. From first-hand observation and incidental reports we know that many of those prepared have trained teachers and other adult basic education program staff members.

Nearly every state plan provides authority to fund teacher training programs. During the first year, a majority of such activity would best be classified as orientation and in-service programs. Under the Rules and Regulations, the only payment direct to the prospective teacher is transportation, thus handicapping recruitment. Title II-B, Adult Basic Education Program, of the Economic Opportunity Act was amended last year to permit up to 5 per cent for direct teacher training proposal grants or contracts with teacher training institutions, agencies or organizations. In February, all such funds were eliminated to maintain the grant fund level to the states for the operation of instructional programs.

With the background as cited we can now look at the role of the colleges and universities in the future.

Teachers and teacher aides trained specifically for the adult basic education programs now in operation are essential. There must be a change from the orientation and in-service training concept to a pre-service training of the teachers. Teachers and teacher aides for adult basic education are rapidly becoming full-time employees. The teachers operate on somewhat different psychological orientation than do the teachers of children, youth or college students. The participants in the adult basic education program are adults with an array of experiences, the majority are from disadvantaged groups and sub-groups. Many are outwardly recognized as minorities with all that this connotes for educational programing. And a sizable number have experienced defeat in prior educational contacts. The program the teachers and teacher aides will guide is not one of reading alone, although reading has an important central role. The content used to teach reading skills is and must be adult in concept and pertinent to the specific need of the adult group being served. Thus I am predicting that a new subdivision of reading specialist will be developed, with central understanding—the teaching of the educationally disadvantaged adult. One essential element will be the ability to develop teaching methods and materials in a team situation with representatives from other disciplines and concerns. Examples of team members would include adult education specialists, psychologists specializing in the adult years, and disadvantaged persons, sociologists, community development workers, welfare personnel, librarians, manpower and vocational specialists, and even such as health educators. The initial dialogue may appear long and fruitless; but it is necessary in resolving differences. I personally would see the adult reading development programs of the future located in those institutions possessing a graduate program of adult education training. Seventeen or more such institutions now offer programs through the doctorate, but many others are planning them.

Instructional materials preparation is an essential part of college and university work. Assumption of such a responsibility also makes necessary the direct liaison relationship with colleges and universities and the agencies which will use the materials. To date, only a few materials field testing projects have been developed. The first of these is a three-state enterprise utilizing the research competencies of a private enterprise. Two others use the expertise of universities—one a state and the other a private institution. Several materials development and testing projects have been funded with Manpower Development and Training Act funds, others with Vocational Education Act funds and the above-mentioned project with Economic Opportunity Act monies. It is my conviction that many more materials development projects must be conceived as well as a field testing component. Colleges and universities should be in the vanguard of such research, materials development, and field testing activities. The rationale used to illustrate the need for and responsibility of colleges and universities in the area of materials development and testing applies in full to their additional role—that of conducting demonstration and pilot projects.

Basic research related to the program,

motivation of the participants, methodological approaches, curriculum development, characteristics of the students, and the kinds and qualities of the teachers are ripe for careful investigation. Of particular need at this time are all types of evaluation and testing instruments developed or adapted to adult basic education students. A whole new field of educational endeavor is about to explode. What the colleges and universities do now to develop the personnel, the procedures, the organizational structure, the methods, the materials, and evaluative techniques will determine the success of adult basic education. In adult basic education, we have a challenge which is not bound by the traditions of the past. The opportunities for expansive and creative approaches are limitless. The only restrictions are those in our own minds and biases.

During the coming fiscal year, it appears certain that funds will be available to accomplish well-conceived projects covering each of the concepts I have discussed. Unless the law is changed by Congress, up to 5 per cent of the funds appropriated for adult basic education will be available for teacher training. Both versions of the amendments to the Act now being considered by Congress would increase the amount to 25 per cent and would include direct Federal financing of pilot demonstration projects as well as teacher training. State plans will continue to provide for financing of local pilot projects, local programs of instruction and teacher training under the state technical and supervisory services provision of the law. Funds from other sources such as the Vocational Education Act of 1963, demonstration and research funds from the Manpower Development and Training Act appropriations, projects funded under Section 207 of Title II-A of the Economic Opportunity Act, Research, Training and Demonstrations, and programs permissible under Title I of the Higher Education Act of 1965 are available. I have cited only a few of the major sources of funds for colleges and universities for strengthening services for educational programs for adults having limited formal education. Here again the possibilities for those in institutions are limited only by one's own ingenuity and the institutional support which can be stimulated.

3. Pointers in Teaching Adult Illiterates

ROBERT E. PALMER
Florida State Department of Education

PARTICIPANTS LEARN best when the teacher applies, along with the body of knowledge to be transmitted, an understanding and appreciation of *individual and group differences.* Administrators and teachers involved in an educational program for adult illiterates, in order to be effective, must be aware of and thoroughly familiar with the differences that categorize this group. In many instances, the illiterate adult's circumstances are tantamount to poverty. Their opportunities—economic, social, educational and otherwise—as a consequence are less than equal to those of the majority of their fellows. Their plight is hopeless without an understanding of their situation by those who seek to serve and help them.

As educators we are now being called upon to raise the education level of some twenty million adult Americans *(1)* to a functional level of literacy. Perhaps we need some "pointers in teaching adult illiterates"—"pointers" that would tend to emphasize certain of these differences that teachers need to know about to do an effective job of teaching this large segment of our population. Since we are dealing with adults, and since the literature is replete with information concerned with the adult as a learner in general, let us examine a few "pointers" in this light first and follow with "pointers" that characterize the undereducated or illiterate adult specifically.

The Adult as a Learner

Adults are *voluntary participants.* Not bound by compulsory school laws they are likely to remain only so long as the information offered relates realistically and agreeably to their needs and desires. Since an adult rarely has long range objectives, the teacher must plan class work in terms of immediate needs.

The adult can *learn new things readily*. He has several assets which give him an advantage over younger students. The first and probably the most important is that he has considerable experience in living *(2)*. Learning is facilitated when facts are related to experiences. The adult has greater difficulty, however, remembering isolated facts.

He is in school for a purpose. He is giving his time in return for knowledge that he wants as fast as he can get it. Sometimes this drive is discouraging, for *he may expect too much of himself*. This is particularly true of the highly motivated adult. In general, the older he is, the slower his reaction time. He can learn readily, but requires a longer time to perform learning tasks.

He must feel the *satisfaction of learning* if he is to continue. He is intolerant of "busy work." He has acquired a "set" to his patterns of thinking and behavior and because of this fact is likely to be more rigid and opposed to change. These patterns often have to be "un-set" if learning is to take place *(3)*.

The Illiterate Adult as a Learner

He is *difficult to identify* and has the *least learning* of all adults. He has succeeded in concealing his inability to read and write all his life. He has become a master in the art of covering up his weaknesses. His formal classroom learning is minimal. He has learned a lot to survive in his environment perhaps, but not what is expected in terms of middle class standards. He cannot perceive middle class "normal" living and book learning. He has learned by experience, through trial and error. For these reasons he is *difficult to involve*. His classroom has been the "open" neighborhood. To remain immobile and cooped up in a small room, exposed to a strange mode of disciplined teaching by an authority figure who may be kind is more than he can stand. His reaction is often one of hostility and rebellion.

He may have experienced failure in this situation before, and subsequent failures attributed to his deviation from the "normal" pattern of a middle class society which he does not understand have raised all manner of doubts, fears, and frustrations in his mind. He is therefore *doubtful of his ability to learn*. He will probably be *watching constantly for signs of rejection* by the teacher.

Because of a deficient facility for verbal communication he is extra perceptive in non-verbal communication. Being extremely sensitive to non-verbal clues, he tends to judge by action rather than words, although he is keen to draw inference from voice inflection and facial expression. His world is perhaps more biologically oriented than the world of those who communicate on a more intellectual plane. He has little or no future orientation; he lives for today without much thought of tomorrow. His goals are short range and have an immediate use value.

He will more than likely be *below average in scholastic aptitude*. He is subject to the same slow-down in the speed of learning as any other adult due to physiological and psychological changes, although his ability to learn is probably equal to or better than it was at dropout age.

Implications for Teachers

Adults must be permitted to determine their own work speed. They should be encouraged and stimulated but not rushed. Planned educational experiences in the classroom should be brief and frequent. Short assignments provide the student with a chance for success. The lessons should be functionally oriented and of immediate value and application. Important points should be repeated frequently.

Physical comfort, especially for older adults, is of prime importance. Heat, lighting and ventilation within proper limits along with suitable furniture will help hold our students. Provision should be made for a convenient meeting place, one which requires a minimum of stair climbing. All schedules should meet the needs of the students, not the teacher. The teacher should refrain from holding meetings overtime and remember the importance of frequent time breaks between short assignments.

"Busy work" should be avoided. The

adult comes to school with a purpose and expects it to be met. He is more perceptive of the teachers' techniques than younger students and will see through, for example, the time block approach as opposed to a meaningful activity approach.

Adults resent being *treated like children*. They should not be weighted down with restrictive rules and regulations. While they need discipline in terms of organized educational experiences and systematic approaches, they, for the most part, do not need punitive action and disciplining for mischievous or malicious behavior *(4)*. They must recognize the practical value of what they are learning, and care should be exercised to see that they do not feel that they are "serving time."

In adult classes the *teacher has a different role* than that which is exercised in the traditional day school program. The teacher of adults is on equal footing with the students in that together they are in a joint search for truth. Directions are minimal and individual freedom is maximal *(5)*. The student is permitted to pursue those aspects of the course peculiar to his needs and desires rather than lock-stepped into a body of knowledge on a given level that he could care less about to satisfy a set of standards that have been established for another group.

Materials selected should be on an adult interest level. They should contain adult language and illustrations. Content or subject matter should have, as nearly as possible, immediate application in terms of the student's current need for information and knowledge, and hopefully it will relate to his daily experiences. A maximum effort should be made to select books and other reading matter that will embody both material appropriate for teaching reading skills as well as needed content information.

The fact of the matter is that we teachers as a group have much to learn about the teaching of adults and particularly those who are impoverished and, according to our own social and personal standards, undesirable. As educated persons, we are no longer in tune with the undereducated; we have lost communication with the needy. We have learned a great deal from books. But what have we learned from people?

There is a wealth of material walking the streets, living next door, and working in the office building across the street. Humanity full of feeling from experience that is life itself will never be learned by us through the printed page. These life experiences that contribute to the deepest kind of understanding can be communicated, however—by association.

My suggestion at this point is that we attempt to meet our adult students on their home ground. Cruise their neighborhoods in a car at first perhaps, but on foot eventually, to talk and walk with them. This will not be easy of course, but remember our purpose—to read, as it were, humanity at first hand and in a particular environment. A kind of VAKT method of seeing, hearing, speaking, feeling, and smelling, through association will reveal insights and ultimately understandings that literally could not be obtained otherwise.

We can learn much from other community agencies. Health and welfare workers can be especially helpful and most are eager to cooperate. A social worker, for example, may be the very best person to provide a guided tour of the neighborhood as mentioned above. At this point we can establish a rapport with a valuable human resource. The social worker knows our students as we would like to, and as we need to. For underlying the educational process at all ages and levels is the need for teachers to know their students, their strengths and weaknesses, attitudes, fears and apprehensions, values, achievement levels, capacities, motivations, and other factors that contribute to an understanding of the differences that make them unique as individuals.

Summary

What I have attempted to communicate here is no revelation. The message is obvious. We need to know and understand our students, who in this case fall into a special category—namely, adult illiterates—in order to do the most effective job of teaching.

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E. INDIVIDUALIZING READING INSTRUCTION

E1. MEETING INDIVIDUAL DIFFERENCES

1. Organizing a Classroom for Reading

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Sonoma County Schools, California

LET'S FACE IT; the better the teaching, as children progress through school, mastering personal reading skills in a group situation, the wider becomes the performance gap in terms of individual achievement.

A Teacher is a Catalyst

What are the factors that must be considered to provide materials for instruction, the equipment and other administrative "minutiae?" We will talk about the process in a classroom in which each child is actively engaged in mastering skills and content. We shall describe a visit made last December to a third grade class, and generalize briefly on how the teacher must draw from a vast inner resource to provide creative leadership.

This is a wise, warm, poised, talented young woman. She is married, has three delightful children, a successful husband. She spends hours outside the classroom; at the library picking out the right book for the right child, attending classes, in-service sessions, and digesting all the information she needs to know about each child, from test results, conferences, and professional reading. She spends hours inside the classroom; planning to make her classroom a true laboratory for learning.

Flexible Grouping is the Key

The children in her classroom live in a suburban area which has, in the last ten years, grown from home-owned prune ranches and vineyards to subdivisions and small factories. Growth has been rapid, there is mobility and a variety of cultures in the school.

This is a classroom where every type of grouping is employed, depending on the learning need. The hard core of reading instruction revolves around modifications of three major groups. The modification for the exciting class learning stems usually from the exciting things developed in and radiating from the discussions of the more able group.

Reading group III is made up of boys, with only one girl. We need no reminder of the different rates at which individuals progress through school. Each of these children brought his previous reading problems with him as he entered third grade. School is difficult, with reading the most frustrating experience of the day. By this time many are convinced they never can read. They have become defeated by the numerous daily proofs of their inadequacy. They are not unmindful of the glances they think they get from the rest of the class as they come to the reading table.

In the last month, three of the eight have moved and taken their reading problems to another school. They may stay in the next school only a few weeks before moving on. Only three members of this group have been in this school since first grade. These slow learners have been deprived of continuity in mastering reading skill. Each of this group has a long history of abortive attempts to help by school personnel; work with a speech and reading teacher, nurse and psychologist's reports, and four of these children are "repeaters." Three have serious emotional problems. How much of the low intelligence rating of this group is due to native ability, and how much to other factors is questionable.

On the Ginn Test all of the boys and the girl scored very low, with any high points due *only* to guesses. We find correspondingly low scores on the California Achievement Tests. These children were exposed to a variety of books last year. At the time of the visit they were in *Cowboy Sam,* easily read, attractive, with low vocabulary and high interest content.

The reading level is kept low to enable these reluctant readers to experience some success. Each child has a supplementary reader for use at home, and checking on it is done conversationally on a one-to-one basis by the teacher. This group experiences first-grade work, presented on an advanced level, out of respect to their age and over-size. There were wonderful cowboy pictures on the wall that day. Experience charts are used, a book for stories of the group is on the board daily, reading games and much mimeographed work to reinforce sight vocabulary and phonics is used. Since in third grade we begin to read for content in other subjects, this group often meets again for special assistance in reading, spelling, math or science materials.

Because practice is important, each member tries to find time each day to read aloud to a classmate helper. These children need twice as much review as other children; teacher skill must be used to make it varied and purposeful. They enjoy game-type phonics and work learning activities. Mrs. Hosack tries to get this group to the reading table with anticipation, with the feeling "Isn't this fun?"

This is a critical "catch-up" year. They are having trouble with visual and auditory perception; the differences between "b" and "d," "went" and "want." Beginnings and endings of words are often confused. There is meager sight vocabulary and little idea of how to attack unfamiliar words. They read word for word with little attention to meaning, pointing and articulating as they stumble along. Directions must be brief, simple, and repeated often. Oral dramatization of new words and concepts, much discussion, and practice broadens vocabulary. Help in unlocking new words in any of the four ways: phonetic analysis, structural analysis, content, and plain memory, are stressed constantly.

If the reading learned daily in school gets much additional practice at home, if school experiences in reading are encouraged, if success in reading is felt often enough, this group can advance to become adequate second grade readers by the end of the year. Mrs. Hosack considers it her major task each day to prod, push, and lead these youngsters along the road to reading success. This is their chance to "catch-up" before entering the bewildering maze of the Middle Grades, with its redundant subject matter demands. If these children do not become self-motivated readers this year, the stigma and discouragement will increase until improvement will become almost impossible in another year.

Reading group II contains thirteen average readers, if such a term is possible. Diagnosis based on the Ginn Reading Readiness Test showed that all but two were having difficulty with consonants, and all but five were having some problem identifying different vowel sounds. All but five were having vocabulary difficulties, particularly in attacking unfamiliar words, although the group does fairly well at recognizing words in context. Most of them already know their compounds and recognize structural endings. They are experiencing comprehension difficulty in finding main ideas, putting events in sequence, and finding details. Although their reading scores were average for the beginning of third grade on the California Achievement Test, they were all low in spelling and language. A survey test is a point of departure in diagnosis. The significant clue for a third grade teacher is the relationship between reading and language and spelling performance.

Each in the group is "average" in age, with "average" intelligence scores, although two have had health problems which resulted in repeated absences in lower grades. Three of the group come from split families, with less interest in reading activities at home. The children are still resisting good work habits, and skillful listening has not been mastered. Directions for independent work must be specific. When reading orally, frequent pauses indicate need for experience in phrasing. Children in this group had been exposed to a variety of different readers. Study of objective data indicated need for a review of a good second grade text. Houghton Mifflin 2-2 was chosen because it reinforces phonics and structural skills in stories of high interest that will develop reading for meaning.

Many in this group will make great strides in reading this year. Several are almost ready to advance to the next group. Some may need constant prodding all year to complete work, follow directions, and work on their own. The chance to move up to another group is good motivation to some students to work harder.

On this December morning they were reading the story of "Snip and His Brothers" and working independently on a mimeo which necessitated rereading the story for detail and gave practice in using blends. They worked well at their seats on material that had been explained to them during the previous day's reading lesson.

Group I is the true challenge for the teacher. Here is a group of excellent readers; they have mastered the basic vocabulary and have no trouble in attacking unfamiliar words. They have good independent study habits and are able to work by themselves for long periods with a minimum of specific teacher direction. Mrs. Hosack keeps them motivated through on-going activities while she spends more time with the less able, who need her direct assistance more frequently.

These children had read Ginn 2-2 and were in Ginn 3-1. All are average or above, with no emotional problems to retard group learning, and they are all doing a variety of supplementary reading. They all come from happy, English-speaking homes, with two parents interested in their progress. All but two have had good health and attendance records throughout school. All scored above average on the reading sections of both tests, and there was high correlation with language and spelling.

They showed facility in skimming, syllabication, three letter blends, reading for sequence, main idea, and critical thinking, both in reading class and the rest of the day. They demonstrated skill in alphabetizing and reference work.

Mrs. Hosack uses the basic material as explained in the teacher's manual, which she presents in the reading lesson, as a springboard for creative writing: tall tales, riddles and poems. Impromptu plays are planned and given for the whole group. These children need this, for oral reading skills can lag behind silent reading ability if not motivated. SRA materials are used here twice weekly to stimulate good readers to still higher levels as self-evaluation skills are developed.

Children in this group help others in the class as they listen to and help with their reading, or prepare stories and reading games for the enjoyment of the whole class. Mrs. Hosack will develop in these children a greater depth of understanding and a wider range of reading tastes. She will work to keep the advanced children from developing lazy work habits, becoming bored or day dreaming. The basic text is the framework around which all the reading habits and activities are developed.

The children were reading and reacting to "The Chimpanzee who Mopped the Floor" when I saw them. New words were discussed, some philosophical questions were raised and tossed about, mimeographed and workbook pages were assigned. After a pleasant directed motivation the children returned to their seats to work independently. They used their time well. Three went in turn to the "Writing Castle," many were at the encyclopedia and library, several were on call to other children, but they were purposeful, busy, and beautifully self directed—and happy.

The progress is the sum total of the teacher's knowledge and skill. Reading groups are always flexible. When drill for the whole class is indicated, time is taken at language or spelling. If only a small group needs reinforcement of a particular skill, say consonant blends, that group meets with the teacher. Work habits are discussed often, as needed. There is a prominently placed chart which serves as a constant reminder of the standards the class has set for itself.

Listening habits are stressed, with training given in following directions and learning new information. Mrs. Hosack has been successful in using the SRA Listening Tests, and relying on *My Weekly Reader*. There are always schedules for the daily lessons on the chalkboard, with suggestions for use of extra time. A chart and file box in the library also contain suggestions for supplementary activities. The library corner is a busy place each morning as students check out books. Each student is encouraged to have his own library card at the local library. The class has placed its first order for Lucky and Arrow Books which are inexpensive, attractively bound books students may own themselves.

There are encyclopedias for independent research and browsing, and they are used. The story castle made by the children with its turrets, a desk, a chair, and a light inside, is usually occupied. On the outside above the door is a sign, which, when the castle is not occupied, is turned to say "The Mystery Castle is Open." By the door are the rules made by the children:

When you get in write a story or poem
Put your story or poem in the box
Then change the sign to Open
Then the next person will do the same thing you did.
Never stay too long.

2. Selecting Books for Culturally Disadvantaged Children

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THE PURPOSE OF teaching reading is that pupils may develop both skill in reading and a delight in books which will enrich life for them as long as they live. A major interest of the educational world today is centered on the discovery of which method of teaching beginning reading will help pupils to read soonest and best. As a result we often forget that what establishes a habit of reading is the use made of it after the textbook is put back on the shelf. This fact is equally relevant to the gifted and to the reluctant reader.

The Problem of the Disadvantaged Reader

Our problem today is to discover how to help the disadvantaged pupil develop this power and this interest. In spite of the obvious fact that many Negro children come from better homes easily comparable to those of the whites, most of them now congregating in our inner-city schools are distinctly underprivileged in their background and surroundings. Many of them come from homes where there are no books or magazines and no inducement to reading. Typically, there is little family life, scant conversation, and no privacy. A sense of inferiority prevails along with an irrational anxiety, bred of a conviction that the world is against them and their kind. With this distressing self image, the child is discouraged before he begins, either withdrawing into himself or determined to fight for his rights. Once in school, he recognizes the wide differences between his way of life and that of the school and the teacher. The result is a sense of alienation that further stifles his ambition *(A, 8)*.

The Need for Understanding Contrasting Cultures

At the present time every effort is being made to help the underprivileged child to find himself in books and to develop a new concept of his future as well as some understanding of the world into which he will go. The Bureau of Indian Affairs has been at work on this problem for a long time. In a delightful volume called *Education for Cross-Cultural Enrichment (A, 24)*, Hildegard Thompson has gathered a concretely suggestive group of essays indicating how the culture of the Indian differed from that of the world beyond his tribal existence. The Indian's life was oriented entirely toward the present with no anticipation of the needs of a possible future. There was no need of budgeting time. No one saved for the days to come. No one took pride in work. The volume then describes the process by which boys from such a background could be induced to prepare for life outside the reservation. The educational program developed aimed at enhancing the Indian boy's self esteem, promoting pride in his inheritance, and a desire for successful participation in society today. How books entered into this process is exemplified clearly in the bulletin, *Suggested Books for Indian Schools*, prepared by the Bureau of Indian Affairs *(B, 36)*. The work of Ann Nolan Clark in this effort is well known through such titles as *Little Navajo Herder, Little Navaho Bluebird*, and *Little Boy with Three Names*.

The Importance of Material Relevant to the Reader's Background

The child in the inner city, whether Negro or Spanish American, is in need of information and stimulation to raise the level of his own self-esteem, to give him a pride in his race, and to help him make the transition from home and neighborhood to a different world. As one writer has said, up to the present in many instances his major concern has been "getting by" rather than "getting ahead."

Motivation in reading depends upon the relevance of the material to the life and the interests of the reader. A revolution is occurring in multi-ethnic reading series for young children, which reveal the life in the inner city and prove that Negroes or Spanish Americans or any other ethnic group can do worthwhile things. A sense of familiarity and of acceptance works wonders with boys and girls. The other day a teacher, without comment, left a pre-primer from the Detroit City Schools series *(B, 40)* on the reading table. A Negro child soon was engrossed in it, examining every page although he could not read. Finally, he closed the book with a sigh, patted the cover, and walked quietly up to the teacher's desk to whisper in her ear, "Mrs. Davis, there's a book over on that table with a little boy in it that looks like me."

The Bank Street Readers are doing the same thing *(B, 40)*. Pictures in full color in both these series reveal life among the peoples of the inner city. The Chandler readers have similar aims with photographic pictures to accompany the text *(B, 40)*. So also has the Skyline series which has come out of St. Louis *(B, 40)*.

Similar in purpose is the little picture book, *My Dog is Lost*, prepared for Puerto Rican children. In it, a lonesome little boy searches for his lost dog on his first day in the streets of New York. A banker, on whose window the child recognizes the equivalent of "We Speak Spanish," gives him a placard with *My dog is lost* written on it in English. His efforts to describe the dog in Spanish words with accompanying gestures intrigue all those who join the search. Then comes the grand climax when his "perrito" jumps down from behind a mounted policeman who is helping the dog to locate his master. This is a slight book by Ezra Keats and Pat Cherr, but one which combines many elements that encourage the Puerto Rican child to believe he has a place in the sun.

Marie Ets's *Gilberto and the Wind*, in a very different vein, shows the love of a little Mexican boy for his playmate, the wind. Most beloved of all is Jack Keat's *Whistle for Willie*, which graphically depicts a little Negro child's efforts to whistle. Some children will be able to read these stories for themselves. Best of all, however, will be the teacher's reading them aloud so that all the children may enjoy together both the text and the pictures.

The importance of hearing such rhythmical stories read aloud is becoming more evident every day. Films and recordings of many of them are now available.* Recently, Weston Woods Studio, Weston, Connecticut, has produced a machine which operates so easily that little children can handle it themselves merely by inserting a boxed film into an opening. The reader, in this case, Harry Bellefonte of television fame, appears on the screen to read a story to the listening children.

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*New York Library Association, Children's and Young Adults Section, *Recordings for Children*. Compiled by Mrs. Augusta Baker, New York Public Library, 1961.

When he turns the book around, showing them the pictures as he reads, they laugh uproariously at his sputters and sneezes in impersonation of Willie and his efforts to whistle. Clearly, here is an inducement to children to want to read for themselves. *Gilberto and the Wind* is also being made available in the same form.

The Search for Inner-City Material

A search is on today for inner-city materials for the primary grades. The reading series already mentioned all deal with this theme.

Then there are innumerable trade books for young children, written about city life, some of which are useful for poor readers in the intermediate grades. Kessler's *Big Red Bus*, Brenner and Katzoff's *Barto Takes the Subway*, and MacDonald's *Red Light, Green Light* open up problems of traffic. Related to the same theme are *Alexander's A B C of Cars and Trucks* and Zaffo's *"Big" Books of Real Trucks, Real Fire Engines, and Building and Wrecking Machines*. These call to mind the easel-sized set of inner-city pictures taken in New Haven, Connecticut, for use in its program for under privileged children, who talk freely about things pictured in the photographs of their own neighborhoods *(A, 29)*.

Goodspeed's *Let's Go to a Supermarket* enhances a favorite pastime of children and Tresselt's *Wake Up, City*, reveals the city at a time of day with which they are seldom familiar. Herman Schneider takes them underground in *Let's Look Under the City*. *City Rhymes* by Grifalconi and *City Street Games* by J. and L. Ambs are also useful.

Burton's *Mike Mulligan and His Steam Shovel* has warmed the hearts of children for nearly thirty years. Snow in the city is always exciting. Hader's book by that title delights the kindergarten and primary grades. *Katy and the Big Snow* and Tresselt's *White Snow, Bright Snow* can be associated with many loved poems about the snow such as Aileen Fisher's "Snowman's Resolution," Alice Wilkin's "Snow," or "Falling Snow" whose author is unknown.*

Community helpers abound in preschool and primary grade books, such as Lenski's *Policeman Small*, Lattin's *Peter's Policeman*, and the most beloved of all policemen in *Make Way for Ducklings*. In view of the Negro's aspiration to serve on the police force, this is a theme of great interest to the children in spite of some unpleasant encounters with these gentlemen.

Above all, the teacher must not forget the library as a major service of the city. Sue Felt's *Rosa Too Little*, Julia Sauer's *Mike's House*, or Crosby Bonsall's *Tell Me Some More* are excellent for reading aloud in the primary grades before a class visits the library or attends a story hour.

Story books also arouse interest in city life: Gilbert's *Mr. Plum and the Little Green Tree*, for example, and *Fly High, Fly Low* by Don Freeman with its striking pictures of San Francisco, the home of the sea gulls. Verses by Phyllis McGinley in *All Around the Town* include many favorites of little children, for instance, "B is for Bus."

Any teacher undertaking such a unit in the intermediate grades should read Marcella G. Krueger's article in the *Chicago School's Journal* for March, 1965 *(A, 10)*. To the titles already mentioned she adds the Haders' *Big City*, Natalie Hall's *The World in a City Block* and many other useful books. Her unit ends with "East Side, West Side, All Around the Town," taken from Ray Wood's *Fun in American Folk Rhymes*.

More Books About Children Like Themselves

Another kind of material much in demand for underprivileged readers is stories of other children like themselves—often Negroes or Puerto Ricans—which will enhance their sense of personal prestige and give them a pride in their own backgrounds. There is no doubt about the usefulness and popularity of Ezra Keat's *Whistle for Willie* and *Snowy Day*, Ann Nolan Clark's *Who Wants to be a Prairie Dog?*, an Indian story, and Marie Ets's *Gilbert and the Wind*. Williamson's *No Bark Dog* and Beim's *Two Is a Team* have also proved useful. So have the stories in the Bank Street, Detroit, St. Louis, and other read-

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*See *Time for Poetry* by May Arbuthnot and *Very Young Verses* by Geismer and Sutur.

ers with bona fide pictures and scenes. Randall's *Fun with Chris* and Brown's *Ronnie's Wish*, also delight young children. Du Bois's *The Three Policemen*, a humorous prideful story of a little boy who directs three lively policemen, is well calculated to raise the blood pressure of any youthful reader. Lipkind's *Four Leaf Clover* is equally spirited. For children in the middle grades Tarry's *My Dog Rinty* continues the storybook tradition that every Negro boy must have a dog.

The Oneness of Childhood

And, lest we give the impression that tastes differ widely according to the color of the skin, let us remember that Negro children also have a right to share in the sheer fun of many books enjoyed by all children everywhere, such as *Curious George*, the lively, mischievous monkey, *Caps for Sale*, and *Andy and the Lion*.

Distinctly lively boys and girls people the pages of children's books. *Homer Price* and *Henry Huggins* are for the middle grades. *Little Eddie* and *Betsy* are humorous and relatively easy to read. The last three come in series, so that a teacher may whet the children's appetites by reading aloud one of them and sending the children to the library for others.

In the intermediate grades, young readers may also discover through books that many different kinds of people are adjusting to life in the United States—in Marguerite De Angeli's *Bright April*, for example, or Ellis Credle's *Down, Down the Mountain*, Margery Clark's *Poppy Seed Cakes*, and Eleanor Estes's *The Hundred Dresses*, or *The Moffats*, who, although white, know something about poverty.

Creating a Pride in Their Country

Underprivileged children, along with all the rest, should take pride in their country's growing. The D'Aulaires' *Abraham Lincoln* and *Benjamin Franklin* are both useful, together with Alice Dalgleish's *The Columbus Story* and *The Thanksgiving Story*. Bulla's *Squanto, Friend of the White Men* reveals a different chapter in American History. Wilma Hay's *Pilgrim Thanksgiving* is also useful for middle or upper grade readers, playing up as it does the Indians' part in the celebration. Esther Averill's *Daniel Boone* is decked with small colored marginal illustrations filled with the details boys like.

Developing a Love of Poetry

The teacher of Negro and Spanish-American children has a significant opportunity to use their instinctive sense of rhythm to develop a love of poetry. Rhymes and jingles are excellent as an opening wedge—for example, "Here we come Looby, Loo;" "I put my right foot in, I put my right foot out;" and all the array of such rhymes in Wiltrout's *Let's Sing and Play*, Inez Bertail's *Complete Nursery Song Book* or Elizabeth Burchenall's *Folk Songs and Games*. Mother Goose belongs to the whole world of childhood. Perhaps *The Real Mother Goose* and Marguerite De Angeli's *Book of Nursery and Mother Goose Rhymes* are as useful as any editions. Geismer and Suter's *Very Young Verses* comes close to the lives of little children. Helen Ferris's *Favorite Poems, Old and New* is good for the entire family, and William Cole's *Humorous Poetry for Children* pleases all ages. The teacher will find invaluable May Hill Arbuthnot's *Time for Poetry* and her discussion of it in *Children and Books* (ed. 1964).

Junior High School Reading

We are very fortunate indeed in the amount of help available from successful junior high school programs for the disadvantaged in New York City. Linda Smith writes most interestingly of the literature program for Negroes in Junior High School 54 in Manhattan *(A, 24)*. Books by Negro authors are prominent in the program and stories of Negro young people, all of which give the students a feeling that their own aspirations and efforts will not be wasted. In Catherine Blanton's *Hold Fast to Your Dreams*, for example, a Negro girl achieves a career in dancing in spite of prejudice against her. In Ruth Chandler's *Ladder to the Sky* a Negro boy realizes he must do better than the whites because he is expected to do worse. Dorothy Sterling's *Mary Jane*, who is the first Negro to enroll in a desegregated junior high school, succeeds in spite of the feeling against her. In Catherine Marshall's *Julie's Heritage,* a Negro girl in a suburban New York high school finds her music an asset in achieving recognition and discovering her own identity.

Lorenz Graham's recent *South Town* and *North Town* identify the problems of Negro families living in the South and the North today. *Roosevelt Grady,* Louise Shotwell's touching story of an eight-year-old Negro boy, son of an itinerant worker, was runner-up for the Newbery medal in 1964. It is a delightful story of a boy who had a passion for arithmetic. He had mastered "add-to" and "take-away from," but his highest ambition was to learn "gaz-inta." Every time they came to "gaz-inta" in the school he was attending, his father was moved to another job. How the family maintained its stability until the father secured a full year's appointment is beautifully and sympathetically told.

Pride in Negro Poetry

Negro poetry is an area of study in either the eighth or the ninth grade in Junior High School 54. It begins with well-known Negro poets whose poems have been recorded. Arno Bontemps's volume called *Golden Slippers,* opens the series with such optimistic poems as Georgia Johnson's "I've Learned to Sing," James Weldon Johnson's ""Lift Every Voice and Sing," and Langston Hughes's "Song of a Negro Washerwoman to Her Son," his "Dressed Up," his "John Henry," and his "Alabama Earth—the Grave of B. T. Washington." Hughes's *Dream-Keeper and Other Poems* is also available on records. Selections from James Weldon Johnson's *God's Trombones,* sermons of a Negro preacher, were played on the recorder. Gwendolyn Brooks's *Bronzeville Boys and Girls* was a "must," she reports, for teen-agers. At the end of her list, Miss Smith remarks, "These are the books they carry around, discuss, and pass along to one another. They are better than made-over classics" *(A, 24).*

The Negro—Past and Present

Everywhere there is a search for materials which will give Negro children and young people a pride in their past. Recently the Associated Publishers have produced *Word Pictures of the Great City* by Elsie P. Derricotte, a book of brief biographies told by a Negro father to his children and suitable for reading in the intermediate grades or for reading aloud to younger pupils. *Famous American Negro Poets* by Charlemae Rollins presents photographs and a poem or two by each poet in addition to biographical sketches. It is intended for the upper grades and junior high school. Many good biographies of individual Negroes are now available to junior high school pupils, which means they will be suitable for slower readers in the senior high. Shirley Graham's *Booker T. Washington, Frederick Douglass, George Washington Carver,* and *Phyllis Wheatley* are particularly useful. Alvin Kugelman's *Ralph J. Bunche, Fighter for Peace,* Dorothy Sterling's *Harriet Tolman and Captain of the Planter,* the story of Robert Small and Catherine Peare's *Mary McCloud Bethune* are also valuable. Russell L. Adams's *Great Negroes Past and Present* challenges the good reader in the junior and senior high.

Jane D. Shackleford's *A Child's History of the Negro* for the intermediate grades is very helpful and can be successfully read aloud to still younger readers. Bontemps's *One Hundred Years of Negro Progress Since the Emancipation* challenges older boys and girls while his *Pictorial History of the Negro in America* is especially useful for its graphic presentation.

Dorothy Sterling's *Forever Free; the Story of the Emancipation Proclamation* is invaluable as a reference source for older pupils. Now Emma G. Sterne has produced *I Have a Dream,* covering the Civil Rights Movement. A poetic recording of the Negroes' story in *North Star Shining* by Hildegarde Swift reads aloud very well and can be read easily by junior and senior high school pupils.

Sport Stories for Negro Boys

A major interest of older boys is sports—and Negro boys may well be proud of the contribution of their race in that area. Older boys seek such biographies as Bontemps's *Famous Negro Athletes,* Charles Einstein's *Born to Play Ball—*

Willie Mays or *Mickey Mantle of the Yankees*, or fiction such as Duane Decker's *Hit and Run* and Gilbert Douglas's *Hard to Tackle*, which reveal the problems of Negro boys on high school teams. Mac Davis has written of *The 100 Greatest Sports Feats* and Philip Harkness, *Lightning on Ice*. Such books as Antonacci's *Basketball for Young Champions* and *Make the Team in Baseball* are popular with elementary school readers. *Little League Heroes*, the story of a Negro boy in the West Austin League, is well liked by middle grade boys.

Music for Youthful Musicians

Music, too, offers a field of powerful interest to many underprivileged pupils. Helen Whiting has written *Negro Art, Music, and Rhyme*, published by Associated Publishers, and suitable in difficulty for Grades 2-4. Harriet Huntington's *Tune Up* describes the instruments of the orchestra and how they work. Langston Hughes has given us *The First Book of Jazz* and James Weldon Johnson has collected a *Book of Negro Spirituals*. Useful contributions in biography have been made by Arna Bontemps in *Famous Negro Music Makers* and *Chariot in the Sky*, the story of how a runaway slave helped build a university through establishment of the Jubilee Singers. Finally, Benjamin Britain's *World of Music* furnishes the whole story in most fascinating pictures, an exciting account for any reader, whether he reads the rather difficult text or the pictures. Seeger's *American Folk Songs* places the Negroes' contribution in the setting of those of other groups or different sections of the country. Will you let me add as a grand climax, Robert McCloskey's *Lentil*, a picture story book of how a boy and his mouth organ saved the day when a notable politician came to visit a Middle Western town. It is good fun for readers from eight to eighty.

The Gateway English Project

Mrs. Marjorie Smiley directs the Gateway Project for Grades 7-9, carried on by Hunter College in three junior high schools in New York City with young people who in the seventh grade range in ability from Grade 4.3 to Grade 7.4. Largely Negroes, Puerto Ricans, or migrants from the southern Appalachians, they come from disadvantaged homes. A detailed description of their problems was presented by Dr. Smiley in her address before a conference called by the United States Office of Education in 1964 *(A, 9)*. According to her summary report in 1965, the aim of the literature program in the junior high school was "to bridge the gap between the pupils' own experiences and those that are the subject of much of the literature acceptable to the more advantaged middle-class children."

Four unit booklets were prepared—the first, *A Family Is a Way of Feeling*, includes lullabies of five nations, a selection from *Roosevelt Grady*, a Puerto Rican story and material from Carl Sandburg along with incidents from the lives of Jesse Stuart and Jackie Robinson. A collection of poems for the same grade, called *Stories in Verse* includes "Casey at the Bat," "The Cremation of Sam McGee," a poem about John Henry, and others by Auden, Benet, Nathan, and Edwin Arlington Robinson. The volume called *Who Am I?* is decidedly masculine in its revelation of how personality is sized up by friends and enemies. It includes stories like *The New Kid* by Murray Heyert, and *Horatio* by Gregor Felsen, together with poems like Robert Frost's "Acquainted with the Night," Edgar Lee Masters' "Achilles Deatheridge" and Emily Dickinson's "I'm Nobody, Who Are You?" Typical girls' stories include "Jam Session at Abbey's" and Morley Callagan's "All the Years of Her Life." *Coping* is a collection of stories of people who cope with difficulties and some who give up the struggle. It includes selections from such works as *Mama's Bank Account, Ordeal in the Desert, Poor Richard's Almanac*, the *Cyclops*, and *Wise Old Aesop*. A few of the selections, like Griffith's *Black Like Me*, have been summarized by experts who understand the use of imagery and other literary effects. The four volumes have the merit of being "thin" although they add up to a considerable amount of reading for the year. In fact, two more volumes had been planned for Grade VII, but four proved to be all the pupils could cover with the amount of speaking, discussion, writing, and dramatization which grew out of the units *(B, 40)*.

The eighth grade booklets are called *Striving, Creatures in Verse,* and *Two Roads to Greatness.* The volume called *Striving* opens with Walt Whitman's "I Hear America Singing." It reveals through stories of a blind machinist, a steelman's nerve, a nurse's duty in time of crisis, a play, *Express Stop from Lennox Avenue,* a singer, an actress, a girl on the road to Grand Opera, and a selection from *The Shadow of a Bull,* success through courage, integrity, and hard work. The stories, all of which are dramatically written, are realistic and apparently elicit from the class straightforward discussion of major issues in finding one's place in the world *(B, 40)*.

Creatures in Verse presents forty pages of clever poems about animals, with scarcely one from a zoo. The spider, the city cat, the vultures, the lone dog, the fish in Max Eastman's "Aquarium," Ogden Nash's centipede, and Elizabeth Coatsworth's "Sea Gull." It is an amazing collection of vividly described and cleverly characterized animals, frequently with sly thrusts at their human counterparts and always with startlingly appropriate rhythms, interesting rhymes, and carefully chosen words and figures. One cannot read the volume without knowing human nature better. One feels that, without doubt, the people who chose them knew both poetry and the problems of youth who struggle with life in an underprivileged neighborhood *(B, 40)*.

Two Roads to Greatness contains selections from and about Abraham Lincoln and Frederick Douglass, the Negro slave who became a friend of Lincoln and a leader of his people. Major speeches of both men and some by Booker T. Washington and others appear in the volume. The "Gettysburg Address," poems by Sandburg, Benet, and Walt Whitman, and a selection from Robert Sherwood's play *Abe Lincoln of Illinois* are typical of the contents of this volume. The books are published by the Macmillan Company. They would seem a tremendous step forward in presenting meaningful selections of high literary quality *(B, 40)*.

Mr. Spiegler, who worked on the series and wrote the introduction to the volume, *Striving,* entitled his article describing another aspect of the Gateway English program, "If only Dickens had written about hot rods!" a boy's response to the suggestion that he read *The Tale of Two Cities (A, 25)*. It was this that made him give up the old "required classics" and seek a new approach and a new content for his so-called "intellectual ghetto." In desperation he staged a book fair of 2,000 books in "jolly pockets" on hundreds of lively topics. The students browsed for three days. They actually bought 1,123 good books. Prime favorites were *Kon Tiki,* Bill Stern's *My Favorite Sport Stories* and *Mutiny on the Bounty.* One boy sought out *The Scarlet Letter,* thinking it was a football emblem. Another discovered *Hot Rod* and read four more of the series in two weeks. You will think they needed guidance. They did, but the teacher now had something to guide.

In this program the teachers found the Scholastic Teen-Age Book Club invaluable. Its *Scope* magazine which has been established to bring current news, sports, stories, and interesting people on television, radio, and the like to boys and girls overage in interests and underage in reading ability proved a godsend. The enthusiasm of teachers working in this program is contagious, and the results most heartening.

How Much Literature for the Underprivileged Reader?

The question is being raised in many places as to whether the underprivileged children in our schools are being introduced to enough literature as literature. A recent survey by the National Council of Teachers of English indicates that in general they are not *(A, 3)*. Dr. Lou La Brant has spoken out eloquently for increased general reading and literary background for the more gifted Negroes who are going on to college *(A, 9)*. At Dillard University, she promoted a plan, sponsored by a foundation, to establish summer session programs in which Negro students entering college in the fall spent six weeks of the previous summer reading under tutorial guidance on the campus and talking over their books individually with a member of the faculty. The experience proved stimulating both to their interest in reading and their ability to discuss intelligently what they had read.

Use of films, tapes, and recordings is in many cases necessary if the material is to be understood. Mrs. Smiley reports successful reading of one or two dramatic scenes from *Moby Dick* after a film of it had been shown. This combination would seem to have great promise.

In the elementary school, reading aloud or telling stories to underprivileged children daily is an obvious necessity. Storytelling in the pre-school and in all the primary grades is a major avenue of transmitting the literary heritage. "The Three Pigs," "The Three Bears," "The Old Woman and Her Pig," "Cinderella," "The Shoemaker and the Elves," "The Three Billy Goats Gruff" and the "Flying Carpet" are all a part of the inheritance of childhood which every pupil can enjoy, whether he can read or not. Colorful editions with pictures as distinguished as the text are now available for all of them. *Aesop's Fables* have recently appeared in similarly attractive editions—"The Hare and the Tortoise," for example, with illustrations by Galdone, and now Louis Untermeyer has brought out an attractive retelling of them. In the development of appreciation of such literature, children get a new feeling for words from Ann Rand's *Sparkle and Spin*.

Especially suitable for intermediate and junior high school pupils are the tall tales, to which the Negro children's own Uncle Remus made so distinguished a contribution. Charlemae Rollins recommends Margaret Wise Brown's adaptation of Bre-r Rabbit as simpler and less filled with dialect than most. *The Fast Sooner Hound*, told by Arna Bontemps and Jack Conroy, also reads aloud very well. *John Henry*, too, has recently been produced in simpler form by Ezra Keats with illustrations by the author. Courlander's *Terrapin's Pot of Sense* is a popular collection of African folk tales. McCormick's *Paul Bunyon Swings His Axe* and Glen Rounds's *Ole Paul, the Mighty Logger* have no trouble finding readers. Davy Crockett and Mike Fink are other men of strength and valor whose stories are now a part of our Americana.

At the intermediate grade level also, *Pinocchio*, *Robin Hood*, the stories of Odysseus and a few Greek and Norse Gods or Old Testament heroes can be successfully used by storytelling, playing of recordings,* or reading aloud. Usually, a certain group of more gifted readers is eager to borrow these books.

In one of the elementary schools in Harlem a program is being carried on for pupils ranking considerably above average in reading. They meet once a week with the school's reading expert to look over some of the most challenging books for young readers, such as *Caddie Woodlawn*, *Wind in the Willows*, *Tom Sawyer*, or James Daugherty's *Daniel Boone*, which they may then borrow for personal reading. After discussing the book he has been reading with the group, each child places his name and the title on a chart called Our Reading Ladder—to show how far up he has gone.

In this school, also, a member of the staff is assigned to handle books ordered from the Scholastic Arrow and Lucky Book Clubs. Much has been made of this program at the Parent-Teachers' Meetings, and many parents are eager to have their children belong. The aim is to have both parents and children recognize reading as a normal part of life at home and school.

Reading Lists

Two reading lists which I hope will be useful follow. The first presents some tempting books and articles on materials and reading guidance for the underprivileged. Numbers in the text indicate which ones I have quoted. The second is a list of lists of books suitable for use with underprivileged children. They have been sent to me from reading programs around the country. May I mention a few of them:

The American Library Association has recently prepared for the Office of Economic Opportunity two lists of books of use with Spanish speaking children, one

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*New York Library Association, *Recordings for Children*. Selected by Mrs. Augusta Baker for the Children's and Young Adults Services Section. New York Public Library, 1961.

in Spanish, which includes such books as Lois Lenski's *Cowboy Small*, Hans Rey's *Curious George*, Elizabeth Guilfoile's *Nobody Listens to Andrew*, Galdone's *The Old Woman and Her Pig*, and Munro Leaf's *The Story of Ferdinand*. These lists, hitherto available in multigraphed form now appear, together with four additional lists of books for the underprivileged, in a monograph called *We Read*, published by the Office of Economic Opportunity *(B, 37)*.

Several lists are available, as you know, in which a special effort has been made to group books of high interest and simplicity of text under various elements in human relationships. In 1963, the American Council of Education revised with the aid of the National Council of Teachers of English its *Reading Ladders for Human Relations*, which groups books topically under such headings as *How It Feels to Grow Up*, *Feeling at Home*, *Living with Change*, and *Living with a Free People*. Within each category, books are listed separately for primary and intermediate grades and for junior and senior high school *(B, 1)*.

Dunn, Jackman, and Newton have recently revised their *Fare for Reluctant Readers*, which gives a broad coverage of books for junior and senior high school boys and girls *(B, 15)*. Its scope is broad, and the authors are willing to include books of known appeal which seldom appear on school reading lists. The National Council of Teachers of English has recently compiled its list of *High-Interest—Easy-Reading for Junior and Senior High School Reluctant Readers (B, 22)*.

Two other well-known lists rely for their placement of books largely upon scientific measures of difficulty and include many textbook materials. Dr. Spache revised his *Good Reading for Poor Readers* in 1964 *(B, 33)*. Helen Sullivan and Lorraine Tolman will bring out a revision of their *High-Interest, Low-Vocabulary Reading Materials* in Boston University's *Journal of Education* in the late summer or early fall *(B, 35)*. A revision of the Syracuse list, *A Place to Start*, appeared in 1965 *(B, 41)*.

The Wilmington, Delaware, list has grown out of the recommendations of teachers engaged in its Three Year Experimental Project on Schools in a Changing Neighborhood *(B, 39)*.

The Minneapolis bibliography on *Negro Life for Students and Teachers in the Elementary School* is carefully chosen by its Human Relations Committee, which spent a summer examining the books and their usefulness with children *(B, 21)*. Augusta Baker's choice of *Books about the Negro* (New York City Public Library), done with very special understanding, has been a standard list for some years *(B, 23)*, and has just been revised. Other lists are shorter, but all have grown out of recent local concern for the underprivileged, and therefore are the product of experience—for example, the Macomb County Library (Michigan) lists on *Experiences* and on *Stories (B, 20)* and the Corpus Christi list of 1965 *(B, 11)*. The Los Angeles *Comprehensive Book Lists*, which are cover-all lists of library and textbooks, are useful for those wishing to order simple textbook materials to supplement their own standard series *(B, 19)*. It will also be helpful for individualized reading programs.

LIST A

SOME TEMPTING BOOKS AND ARTICLES ON READING MATERIALS AND READING GUIDANCE FOR THE UNDERPRIVILEGED

1. Baltimore Public Schools. "Education and Inner City Children," *Baltimore Bulletin of Education*, XLI, No. 2, 1963-64.
2. Berg, Paul Conrad. "The Culturally Disadvantaged Student and Reading Instruction," pp. 111-119 in *Meeting Individual Differences in Reading*, University of Chicago Reading Conference, 1964, University of Chicago Press.
3. Corbin, Richard and Crosby, Muriel, Co-Chairmen. *Language Programs for the Disadvantaged*, the Report of the NCTE Task Force on Teaching English to the Disadvantaged, the National Council of Teachers of English, Champaign, Illinois, 1965. $2.95.
4. Davis, Allison. "Society, School, and the Culturally Deprived Student" in *Improving English Skills of Culturally Deprived Youth*, pp. 10-22. United States Department of Health, Education and Welfare, Office of Education Bulletin, 1964, No. 5.
5. Detroit Public Schools, Division for Improvement of Instruction, Language Education Department, The Follett Preprimer Series, Rationale Prepared by Gertrude Whipple.
6. Figurel, J. Allen (Editor). "Teaching Reading to the Disadvantaged," pp. 160-

175 in *Improvement of Reading Through Classroom Practice,* International Reading Association, 1964.

7. Grambs, Jean D. "The Culturally Deprived Child: Achieving Adequacy through Education," *National Elementary School Principal,* XLIV (November, 1964), 8-15.
8. Groff, Patrick. "Access to Education; New Books for the Slum Child," *The Wilson Bulletin,* XXXVIII (December, 1963), 345-48.
9. Jewett, Arno; Mersand, Joseph, and Gunderson, Doris V. *Improving English Skills of Culturally Different Youth in Large Cities.* Washington: U. S. Department of Health, Education and Welfare, Bulletin No. 5, 1964, Government Printing Office.
10. Krueger, Marcella G. "Choosing Books for the Disadvantaged Reader Can Provide Fruitful Experiences," *Chicago Schools Journal,* XLVI (March, 1965), 246-55.
11. La Brant, Lou. "The Goals for Culturally Different Youth," pp. 22-31 in Jewett *et al.* Item.
12. Levy, Betty Bollinger. "Classroom in the Slums," *Harvard Graduate School of Education Association Bulletin X* (Summer, 1965), No. 2, 18-21.
13. Lighthall, Nancy. "Procedures and Materials for the Culturally Disadvantaged Reader in Grades Nine Through Fourteen," pp. 155-59 in *Meeting Individual Differences in Reading,* University of Chicago Reading Conference, 1964, University of Chicago Press.
14. University of the State of New York. The State Education Department, Bureau of Guidance, Albany, New York. *Selected References for the Education of Culturally Disadvantaged Groups,* 1964.
15. Reissman, Frank. *The Culturally Deprived Child,* Harper, 1962.
16. Reissman, Frank. "Some Suggestions for Teaching the Culturally Deprived," *National Education Association Journal* (April, 1963), 20-22.
17. isikoff, Rose D. *Curriculum Questions for Equal Educational Opportunity.* Curriculum Consultation Service, Bank Street College of Education, 103 East 125th Street, New York City.
18. Rivlin, Harry (ed.). "Teaching and Teacher Education for Urban Disadvantaged Schools," *Journal of Teacher Education,* XVI (June, 1965), 135-92.
19. Robinson, H. Alan (ed.). *Meeting Individual Differences in Reading.* Vol. XXVI, Supplementary Educational Monographs, No. 94, University of Chicago Press, 1964.
20. Robinson, H. Alan (ed.). *The Underachiever in Reading.* Supplementary Educational Monographs, No. 92 (December, 1962).
21. Rollins, Charlemae. "American Literature for Children," pp. 187-89 in *The Teacher and American Literature.* Edited by Lewis Leary, Champaign, Illinois, National Council of Teachers of English, 1965.
22. Smiley, Marjorie B. "Gateway English: Teaching English to Disadvantaged Students," *English Journal,* 54 (April, 1965), 265-74.
23. Smiley, Marjorie. "Research and Its Implications," pp. 35-61 in Jewett *et al.,* Item No.
24. Smith, Linda. "Literature for the Negro Student," Bulletin of High Points 47: 15-26, October, 1965.
25. Spiegler, Charles G. "If Only Dickens Had Written About Hot Rods," *English Journal,* 54 (April, 1965), 275-79.
26. Thompson, Hildegard. *Education for Cross-Cultural Enrichment,* "Selected Articles from Indian Education," U. S. Bureau of Indian Affairs, Publications Department, Haskell Institute, Lawrence, Kansas, 1964.
27. Whipple, Gertrude. "The Culturally and Socially Deprived Reader," in *The Underachiever in Reading,* Supplementary Educational Monographs, No. 92. Chicago: The University of Chicago Press, 1962.
28. Whipple, Gertrude and Black, Millard H. *Reading for Children Without—Our Disadvantaged Youth,* International Reading Association, Newark, Delaware, 1966.
29. Wright, Betty Atwell. *Urban Study Prints,* New York: The John Day Company.

LIST B

SOME HELPFUL LISTS OF BOOKS FOR UNDERPRIVILEGED READERS IN ELEMENTARY AND SECONDARY SCHOOLS

1. American Council on Education. *Reading Ladders for Human Relations.* Muriel Crosby, editor. Champaign, Illinois: The National Council of Teachers of English, 1963. $2.50
2. American Library Association, Children's Services Division (prepared for the U. S Office of Economic Opportunity). *Children's Books in English and in Spanish, for Spanish Speaking Children. Children's Books in English for Spanish-Speaking Older Boys and Girls.* U. S. Office of Economic Opportunity, Washington, D.C., 1966.
3. Anderson, Marion Posey. *Books to Grow On; Helping the Very Young Explore Their World and Its People,* prepared by the American Jewish Committee, Institute of Human Relations, New York, 1961. Price 25¢.
4. Arkansas Library Commission, Little Rock, *Bibliography for Pre-School Children.* Chosen by Freddy Schader, 1965.
5. Baltimore Public Schools. *Books for Children Who Have Had Many Advantages,* 1964. (To help them understand some of the many kinds of problems faced by other children of the world.)
   Books for Victims of "Disadvantaged Environments" (To bring joy and develop appreciation, to help children develop such traits as courage and understanding, to help them see beauty and goodness in

others, in themselves, and in the world in which they live.) 1964.

6. Bank Street College of Education, Curriculum Consultation Service, 103 East 125th Street, New York City.
Americans All: An Intercultural Bibliography for Easy Reading at High Interest Level. Kg.—S.H.S.
7. Bishop, Claire Huchet. "A Selected List of Children's Books: Have-Nots Here and Abroad," *The Commonweal,* 67 (May 24, 1957), pp. 208-215.
8. Bureau of Indian Affairs, Branch of Education, United States Department of the Interior, *Suggested Books for Indian Schools,* Publications Service, Haskell Institute, Lawrence, Kansas, 1965. Price 50¢.
9. Chicago Public Library. *A Selected List of Books about Negro Life for Children,* 1963.
10. Chicago Public Schools, Department of Curriculum Development, Bureau of Instructional Materials, Division of Libraries, *The Negro in Life and Literature,* May, 1965.
Bibliography for the Observance of Negro History Week. Kg-12, 1965.
11. Corpus Christie, Texas. *Books Selected for Use in Project Opportunity, Community Action Program.* 1965.
12. Dade County Schools, Florida. *Aids in Selecting Books for Slow Learners.* Special Reading Services, Learning Materials, Inc., 425 North Michigan Avenue, Chicago, Illinois.
Personal Problems of Children, Elvajean Hall, Compiler, Grades 1-9.
13. Detroit Public Schools, Division of Instruction, Language Education Department. *Library Titles Preferred by Teachers and Children in a First-Grade Experiment in Multi-Culture Areas,* Gertrude Whipple, Compiler.
14. District of Columbia Public Schools, Urban Service Corps, *Reading is Fun.* Compiled by Annette C. Reid.
15. Dunn, Anita; Jackman, Mabel and Newton, Roy. *Fare for the Reluctant Reader,* Albany, New York: Capital Area School Development Association, State University of New York, 1964.
16. Eagle, Opal C. "Easy Adult Books for Slow High School Readers," *Top o' the News,* XVII (December, 1960), pp. 19-21.
17. Houston Independent School District, Department of Library Services, *Books for Pupils in the Elementary Talent Preservation Program,* 1965. *Personal Problems of Youth* (Fiction for the Junior High School).
18. Jones, Milbrey L. "Easy Books for Slow Senior High Readers," *Top o' the News,* XXI (April, 1965).
19. Los Angeles City School Districts, Division of Instructional Services, Instructional Aids and Services Branch, Library Section. *A Bibliography of Easy Books for Junior and Senior High School Students,* 1964.
Books for EMR Classes—Special Training Pupils in Elementary Schools, 1965-67.
Comprehensive Book List—Title I—Recommended Titles for non-English Speaking Program. Comprehension List of Recommended Books for Remedial Reading Classrooms.
Easy Reading Books Ordered for Junior High Libraries in the School-Community Opportunity Project in Education, 1963.
Easy Reading Books Ordered for the Senior High Libraries in the School-Community Opportunity Project in Education, 1963.
Kindergarten Book List, Title I.
20. Macomb County Library, Mt. Clemens, Michigan. *Picture Books for Pre-Schoolers, I. Experiences Book List, II. Stories,* 1965.
21. Minneapolis Public Schools, Minneapolis, Minnesota, Human Relations Committee. *A Bibliography of Negro Life for Students and Teachers in the Elementary School,* 1965.
22. National Council of Teachers of English, Champaign, Illinois. *High Interest—Easy Reading for Junior and Senior High School Reluctant Readers,* Compiled by Raymond Emery and Margaret B. Houshower. 1965. Price $1.00.
Books for Beginning Readers, compiled by Elizabeth Guilfoile. 1962.
23. New York City Public Library. *Books About the Negro.* Selected by Augusta Baker. New Edition, June, 1966.
24. University of the State of New York, Bureau of Child Development and Parent Education, Division of School Supervision, *A Few Suggested Books for Nursery School Children,* 1965. Albany.
25. University of the State of New York, State Education Department, New York State Library, Division of Library Extension. Albany, New York. *Picture Books with a Dual Function.* 1964.
26. North Carolina Advancement School, Winston Salem, North Carolina. *Library Books Frequently Circulated* (High School Boys). *Torchbearer Library* (from the Reading Clinic).
27. Free Public Library of Philadelphia, Office of Work with Children, *Easy Reading for Grades 1 and 2,* 1962.
28. "Readable and Interesting Books for the Reluctant and Retarded Reader," *Elementary English,* 40:106-09, January, 1963.
29. San Diego State College, California. *Recent Easy Books for First Grade Children.* Compiled by Patrick Groff.
30. Scholastic Magazines, Inc., 900 Sylvan Avenue, Englewood Cliffs, New Jersey, 7-7900.
Book Clubs:
    Lucky Book Club—Grades 2-3
    Arrow Book Club—Grades 4-6
    Teen Age Book Club—Grades 7-9
    Campus Book Club—Grades 10-12
Books to Encourage the Reluctant Reader. High Maturity—Easy to Read Paperback Books for Junior High School Students. Compiled and annotated by Mrs. Ruth R. Adams, City University of New York.

Reader's Choice Catalog of Paperbacks for Elementary and High School Magazines—Practical English (High School) and *Scholastic Scope*, adult easy-to-read materials for the disadvantaged.

31. Science Research Associates, Inc. *Multi-level Bibliography of Independent Reading*. Chicago, Illinois.
32. Seligson, Y. "Resources for Reading Teachers; Books for the Reluctant and Retarded Readers," *Journal of Education*, 146:60-70, April, 1964.
33. Spache, George D. *Good Reading for Poor Readers*. Champaign, Illinois: Garrard Press (Rev., 1964).
34. Strang, Ruth; Phelps, Ethlyne; and Withrow, Dorothy. *Gateways to Readable Books*. New York: H. W. Wilson Company, 1958. $3.00.
35. Sullivan, Helen and Tolman, Lorraine. "High-Interest, Low-Vocabulary Reading Materials; A Selected Booklist," *Journal of Education*. Boston University. New Edition, Summer, 1966.
36. United States Department of the Interior, Bureau of Indian Affairs. *Suggested Books for Indian Schools*, Publication Service, Haskell Institute, Lawrence, Kansas, 1965. Price 50¢.
37. U. S. Office of Economic Opportunity, Department of the Interior, Washington, D.C. *We Read* (In press, 1966). Includes eight bibliographies for underprivileged children and youth, prepared by the Children's and Young Adults' Services of the American Library Association.
38. Urban Service Corps, Volunteer Reading Aids Program, Washington, D.C. *A Graded Bibliography for Children with Reading Difficulties*. Compiled by Roy A. Kress.
39. Wilmington, Delaware Public Schools, Three Year Experimental Project on Schools in Changing Neighborhoods: *A New Resource; Growing Up with Books*. Bulletins Nos. 1-5 (October, 1960-May, 1961). Muriel Crosby, Director. Ages 6-16.
40. Some examples of Reading Series for the Underprivileged:
    a. *The Bank Street Readers*. Pre-Primers through Grade 11. The Macmillan Company, New York City.
    b. *The Chandler Language Experience Readers*. (Through Primer.) The Chandler Publishing Company, San Francisco, California.
    c. *The City Schools Reading Program* (Detroit). Gertrude Whipple, editor. Primary Grades and Pre-Primers. The Follett Publishing Company, Chicago, Illinois.
    d. *The Gateway English Series* with *Teachers' Handbooks*, Grades 7-8. Project English Curriculum Study Center, Hunter College of the City University of New York, Dr. Marjorie Smiley, Director. The Macmillan Company, New York, 1966.
    e. *The Skyline Readers*, Banneker Project, St. Louis, Missouri. Mrs. Virginia Brown and Mrs. Arvin Phillips, *et al.* Webster Division, McGraw-Hill Book Company, St. Louis, Missouri.
    f. *New Worlds of Literature*, Grade 9. Warren J. Halliburton and Mauri E. Pelkonen, Harcourt, Brace and Company, New York City.
41. The Reading and Language Art Center. *A Place to Start*. Syracuse, New York: Syracuse University, 1965. $2.00.

E2. PERSONALIZED READING

1. Encouraging Personal Reading in Junior High School

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TO PERSUADE STUDENTS that reading can help with solutions to their problems, give a broader, more accurate picture of a situation, provide pleasurable experiences, and equip them to meet life more effectively is not just a matter for telling. To most students, words are just words. Too often, statements of benefits from reading—true as they may be—fail to spur students to read.

Perhaps it ought to be *permitting* rather than *encouraging* personal reading in junior high school. For the junior high years are a "golden age of reading" for many students, provided the teacher does not discourage extensive personal reading and provided books are available.

What, then, does a teacher do to keep the shine of this "golden age of reading" for his students? An answer might be that he bases his teaching and assignments on the interests, needs, and abilities of his students. This is true, but does it answer the problem fully? How does he encourage a student who detests being asked to open a book to make an initial venture in reading? How does he motivate students who have gotten little pleasure and few answers important to them from reading to reach for a book for enjoyment or for the answer to a problem? In short, how is a willingness and desire to read promoted among students?

Something to Read

Students should have immediately available to them a large selection of interesting, worthwhile, attractive, and readable books. These should be books on varying levels of difficulty so that all can find something to read. They should be books on a wide range of interests so that all will *want* to read.

A well-stocked school library easily accessible throughout the school day may suffice for the student who already reads books of his own selection extensively. For the student who is reluctant to attempt personal reading, a classroom library is also essential.

A classroom collection of one hundred to one hundred and fifty individual titles on six or eight week loan from the school library can make the difference in whether less verbal students share in this "golden age" of personal reading. These books are closer and easier to get to. There are fewer of them; they relate more closely to what is being taught as well as to the interests and abilities of this group of students, and so it is easier to find something to read. The teacher is closer at hand when the student is looking for a book and so, if he needs it, the pupil can have the help of someone who knows him well. The books and periodicals in this library are changed regularly as the class moves on to a new unit of study and so there are frequently new materials from which to select.

Students should be allowed time to browse and to read materials they have selected. Personal reading is as important a part of classroom instruction as is required reading. Personal reading by each student is too important to relegate to the summer vacation or even to school nights. Some class time must be found and devoted to personal selection of books and to personal reading. If not, how can schools claim to be producing adults who not only *can* but *will* read?

A Teacher to Emulate

A teacher who is enthusiastic about his own reading and who talks with his class about some of the things he reads, transmits his enthusiasm to his students. Through reading, the teacher also finds answers to his problems, gets a more accurate picture of a situation, enjoys pleasurable experience, and better equips himself to meet life effectively. It is important that his students know this. Personal reading is not just for students!

The teacher who also has read and continues to read books written expressly for young adults stands a much better chance of being able to motivate his students' personal reading. It is exceedingly difficult for a student to share a reading experience with his teacher if the teacher knows little about what the author has to offer students. While no teacher can probably expect to read all the books written for his students, every teacher needs to read regularly the books which his students are reading.

A teacher who talks to a student about his reading while the rest of the class is working or when the class is not in session does a great deal to motivate that student to read more. Not just, "What are you reading now?" but, "What do you think of the main character? What do you think of the author's ability to describe a theme? What was the most exciting part for you? What will you read next?"

A group of students, together with the teacher, can undertake promotion of increased student activity in personal reading. Intriguing excerpts from a story might be read to the class to encourage some student to charge out that story and complete the reading. Short book lists can be posted in the classroom. Topics should change frequently. One week it might be, "Three Tales of Adventure at Sea;" the next week, "Five Books About Sports Cars and Racing;" the next, "Four Books About Buried Treasure." Short, interesting student comments about books might be forwarded to the school newspaper. Teachers can encourage the school news staff to publish these comments. A group of students or the teacher might feature a "book-of-the-week." This book would be introduced at the beginning of the week and given prominent display throughout that week.

A teacher needs to get personal to encourage personal reading. Since he can't talk with individual students as often as he'd like, he and his students sometimes resort to writing notes. A section of the bulletin board is reserved for these notes. A note posted for a particular student might read, "Chuck, if you enjoyed reading *A Night To Remember*, you might enjoy reading *Day of Infamy* by the same author." A note by a student who has read a book he liked might read, "*The Pearl Lagoon* is an exciting story about pearl diving and life in the South Seas. I think boys would like this book."

Activities that Can Spark

The formal book report or the requirement for a satisfactory mark in the course are not devices that stimulate extensive personal reading. Both are much too impersonal. The teacher who would promote readers who *can* read and *want* to read tries other activities. A few suggestions for motivating interest in personal reading follow. Teachers use a variety of these and other ways to promote "readers" among their students.

Student Goal Chart. Following a conference with his teacher, each student records what he hopes to accomplish in personal reading. As he completes each of the goals he has set down for himself, he checks that goal on his record.

Student Diary. Each student keeps a "Personal Reading Diary." This can also serve as a source for determining interests if a pupil feels free to record *all* he reads.

Book Discussion Groups. The class is divided into groups of five or six students. Each pupil brings a book he has read with him and talks to his group about that book. Pupil recommendations are frequently more effective than anything a teacher may say. By dividing into small groups, more can be accomplished in a shorter period of time.

Tape Recording. A club or small group discussion on a book or author can be tape recorded and played to a class to stimulate student interest.

Book Selling. Either the teacher or a student might give a one or two minute "sales pitch" for a book he would like members of the class to read.

Book Program. A "Festival of Books" might be planned as an all-school, or classroom activity. Visitors would be invited; guest and student talks would be given; books would be exhibited with student commentaries, and books would be sold to students.

Preparation of Reading Lists. Students can help the teacher in the preparation of reading lists for particular purposes. Using the reading they have completed as reference, they might devise lists titled:

Books That Are Thin But Nourishing
What To Read In Summer
Classics You Might Enjoy
Adventure Stories That Increase In Challenge To Reading Skill
Books Boys Like
Books To Read On Skin Diving

Interview. Students can be asked to interview successful business and professional men in their community about books which they have especially enjoyed reading.

The activities just cited are few in number. Individual teachers have devised many more. Activities found most successful rely heavily on individual student selection, reading, and commentary. Pupils asked to participate in planning and evaluating what they read are more inclined to *want* to read. A pupil who reads what few others or no one else has read is more inclined to feel it is important to share what he has read with others. He is not competing with the rest of the class who have all read the same thing; he is making his own unique contribution to class discussion.

The junior high school student who undertakes extensive personal reading is encouraged by a wide variety of reading materials readily accessible. He is encouraged by a teacher who shares enthusiasm for reading with him. He is stimulated to read by classroom activities that have personal meaning for him. This junior high student—like others before him—has entered the "golden age of reading."

F. RESEARCH REPORTS

1. Variation in Syntactical Language Development and Reading Comprehension Achievement of Selected First Grade Children

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DURING THE PRE-SCHOOL years the average child's grammatical development increases dramatically from one word utterances at the end of the first year to lexical class substitution in the second year *(15)*, and the mastery of most basic grammatical fundamentals by the fourth year *(3)*. Likewise the vocabulary development increases at an astonishing rate from the minute group of words used by the one year old to many hundreds of words recognized by the average first grader *(12)*. Thus by the time the child enters the first grade, he has achieved a high degree of sophistication in his language development *(13)*.

It must be recognized, however, that a wide range of variability is present within these general research findings. Past research has shown that the language development of children is a function of numerous factors. These include provision for an appropriate language model *(1, 2)*, the opportunity for parent-child interaction *(2, 10)*, dialect differences in the home and school *(1, 8)*, and socio-economic level *(8, 13)*. Francis has theorized that the degree of development of the child's syntactical system is directly related to his success in comprehending language *(4)*. Miller has shown experimentally that an individual must assign a constituent structure to a sentence in order to understand it *(9)*. A child's control over his syntactical language system would thus be expected to be a function of his socio-ethnic environment and closely related to his comprehension and production of oral language.

Past research also indicates that variability in reading comprehension achievement is closely related to oral language development and to the background characteristics of the child *(6, 8, 11, 13)*. The very nature of the writing system results in a more precise, but less redundant medium than does oral language, and it consequently places a greater burden on the reader. The reduced redundancy resulting from the inability of the writer to respond to the reader's question and the lack of supplementary meaning cues (stress, pitch, juncture) in written as compared to oral language demands that the beginning reader possess some understanding of the relationship which exists between written words encountered. It is thus hypothesized that the child who possesses a high degree of control over his syntactical language system would also exhibit greater success in comprehending written material.

Objectives and Hypotheses

The first objective of the investigation was to study the relationship between children's ability to comprehend and produce selected syntactical items and socio-ethnic classification. A second objective of the study was to explore the relationship between first grade children's control over selected aspects of their syntactical language development and their sentence meaning comprehension, paragraph meaning comprehension and vocabulary achievement.

The following hypotheses guided the planning of the study:

1. Subjects classified in the High Caucasian category will score significantly higher on the syntax test than will subjects classified in the Low Caucasian or Low Negro category.
2. Subjects classified in the Low Caucasian category will score significantly higher on the syntax test than subjects classified in the Low Negro category.
3. An analysis of errors on the syntax test will reveal significant variations in the language comprehension and production of subjects classified in the High Caucasian, Low Caucasian and Low Negro categories.
4. Sentence meaning comprehension, paragraph meaning comprehension, and

vocabulary achievement of first grade children are a function of the control which the children exhibit over designated aspects of their syntactical language system.

Design and Procedure

The subjects studied in this investigation were selected from twenty-four first grade classrooms representing a wide range of socio-economic levels in the Oakland Unified School District, Oakland, California. One hundred and sixty children were drawn at random from the twenty-four classrooms and categorized into socioeconomic levels on the basis of the Minnesota Scale for Paternal Occupations *(14)*. The subjects were further subdivided into two groups—Caucasian and Negro. Although all criterion measures used in this study were administered to the sample of one hundred and sixty subjects, a smaller stratified sample of thirty subjects was randomly chosen for the purposes of this study. Ten children were randomly selected from each of the following socio-ethnic categories: the High Caucasian category, composed of Caucasian children classified in levels 1 and 2 of the Minnesota Scale; Low Caucasian category, composed of Caucasian children classified in levels 5, 6, and 7 of the Minnesota Scale; Low Negro category, composed of Negro children classified in levels 5, 6, and 7 of the Minnesota Scale. The investigator had originally planned to study a High Negro group which would have represented Negro children classified in levels 1 and 2 of the Minnesota Scale, however, the small number of subjects available in the sample prohibited the development of this category.

During the first month of the school year the Test of Syntax was administered individually to the thirty randomly selected children. This test, originally developed by Fraser, Bellugi, and Brown was slightly modified and extended for use in the study *(5)*.

The following types of grammatical contrasts were evaluated: mass and count noun (a paper/some paper); singular and plural nouns marked by inflections (The boy draws/The boys draw); singular and plural nouns not marked by inflection (The deer runs/The deer run); singular and plural nouns marked by *is* and *are* (The deer is sitting/The deer are sitting); present progressive and past tense (The paint is spilling/The paint spilled); present progressive and future tense (The baby is climbing/The baby will climb); affirmative and negative (The girl is cooking/The girl is not cooking); subject and object in the active voice (The duck pulls the boat/The boat pulls the duck); subject and object in the passive voice (The mommy is kissed by the daddy/The daddy is kissed by the mommy); indirect object and direct object (The girls shows the rabbit the bear/The girl shows the bear the rabbit); singular and plural of third person possessive (their wagon/his wagon); and simple present and future tense (Holds the hammer/will hold the hammer).

The Test of Syntax[1] was used to provide a measure of the children's oral language ability to imitate, comprehend, and produce the grammatical contrasts described above. Each set of grammatical contrasts was presented to the child orally. The child was then asked to relate the appropriate response to first one and then the other of two pictures illustrating the different forms of the contrast.

The item responses were scored by utilizing the "Production" scoring procedure described by Fraser, Bellugi and Brown *(5)*. These data were used in testing hypotheses one, two, and four. An error count based on a classification designed by the investigator was effected for obtaining data used in testing the third hypothesis.

In the last month of the school year, nine months after the Test of Syntax was given, three tests were administered to the thirty children. The first test, the Primary test of Syntax,[2] was developed by the investigator for the purpose of measuring sentence meaning comprehension. This test encompassed written items constructed with vocabulary developed in the early stages in the reading programs used.[3] The specific items were patterned after the Fraser, Bellugi and Brown oral Test of Syntax which has been previously described.

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[1] Reliability coefficient when corrected by the Spearman-Brown Prophecy Formula +.93.

[2] Reliability coefficient when corrected by the Spearman-Brown Prophecy Formula = .93.

[3] Although different reading treatment groups were utilized with this sample and the larger sample it is assumed that the stratified random selection of subjects for this study will equate interferences from varied treatments.

The child was required to select the appropriate form of a written grammatical contrast to match the identical contrast in illustrated form. The second test consisted of the Paragraph Meaning subtest of the *Stanford Achievement Test,* Primary I. This test was utilized in measuring the children's ability to respond to connected discourse by selecting the proper response to a deleted word from four possible items. The third test was the Vocabulary subtest of the *Stanford Achievement Test,* Primary I. This test measures a child's ability to select one of the three responses in relation to an oral context or definition presented by the examiner.

The data for hypotheses one and two were analyzed by using the analysis of variance. If significant effects were found on the F test, then individual comparisons of the means were made by using the Scheffé technique of contrasted means. Hypothesis three was tested by using the Pearson *chi* square technique *(7)*. Individual items were tested for significance and where significant differences were found, the Scheffé technique was used to identify the significant contrasts between the socio-ethnic classifications. The fourth hypothesis of the study was tested by using the Pearson product-moment correlation.

Findings of the Study

On the basis of the significant F value ($F=4.21$ d.f. $1/27$ $p<.05$), the Scheffé technique was employed to test the contrasts relative to the first hypothesis. The mean contrast between the High Caucasian group and the Low Caucasian group was not found to be significant, although it closely approached the required level ($p=.05$, mean contrast must exceed 13.74). The mean value for the High Caucasian group was found to differ significantly from the Low Negro group ($p=.01$, mean contrast must exceed 18.5). These data are presented in Table 1.

TABLE 1

MEAN VALUES FOR THE SYNTAX SCORES FOR THE SOCIO-ETHNIC CLASSIFICATIONS

	High Caucasian	Low Caucasian	Low Negro	Classification Contrasts HC-LC	HC-LN	LC-LN
Syntax score	39.20	26.90	16.00			
Mean diff.				12.30	23.20*	10.90

*Contrast significant at the .01 level (mean difference must exceed 18.50). The null form of the first part of the hypothesis could not be rejected; however, the null form of the second part of the hypothesis stating no difference between the High Caucasian group and the Low Negro group was rejected.

As evidenced in Table 1, no significant difference was found on the syntax variable between the Low Caucasian and the Low Negro categories ($p=.05$, mean contrast must exceed 13.74). The null form of the second hypothesis could thus not be rejected.

The analysis of errors on the Test of Syntax relative to the third hypothesis revealed a number of significant variations in the language control and usage between the socio-ethnic categories of subjects. These data are reported in Table 2.

One of the most frequent difficulties encountered by the Low Caucasian and Low Negro subjects in contrast to the High Caucasian subjects occurred with the use of the subject and verb agreement in the third person singular and plural. The Low Caucasian subjects experienced significantly greater difficulty than the High Caucasian subjects in adding the /s/ or /z/ inflectional endings to the noun head and in omitting the /s/ or /z/ or /əs/ inflections from the verb. The former difficulty did not occur with the Low Negro subjects; however, the difficulty of the latter type was in evidence.

The High and Low Caucasian group had significantly less difficulty with transitive verb agreement, auxiliary verb agreement, and the use of third person possessive pronouns than did Low Negro subjects. The Low Negro group also had significantly greater difficulty in omitting

TABLE 2

COMPREHENSION AND PRODUCTION OF SYNTAX ITEMS FOR ERROR VARIATION IN HIGH CAUCASIAN, LOW CAUCASIAN AND LOW NEGRO SUBJECTS

Error Type	Chi square value	Proportion value for socio-ethnic classification HC-LC	HC-LN	LC-LN
Subject-Verb Agreement				
Omits /s/ or /z/ on noun head	15.79*	.06	.36*	.30
Adds /s/ or /z/ on noun head	9.16*	.03*	.01	.02
Omits /s/ or /z/ or /es/ on verb	43.83*	.11*	.21*	.10*
Uses reverse auxiliary verb form	12.26*	.03	.11*	.09*
Pronoun substitution— *their* sub. for *his* or *her* (or vice versa)	21.07*	.15	.50*	.30*
Subject Group				
Passive form—agent reversed	12.16*	.08	.33*	.25*
Predicate Group				
Tense—verb form changed from past to pres. prog. or simple pres.	8.71*	.03	.05	.06*
Tense—verb form changed from pres. prog or simple pres. to past	8.34*	.01	.02*	.02*
Error Type				
Voice—passive changed to active	14.22*	.33*	.33*	.00
Auxiliary—omits from sentence	15.07*	.06*	.09*	.03
Special Additeives				
Movable—inserts movable of place	6.97*	.02	.03*	.01
Negative—inserts in sentence item	14.29*	.00	.02*	.02*
Direct object—inserts in sentence item	10.84*	.05*	.06*	.01

*Significant at the .05 level.

the /s/ or /z/ inflectional endings from the noun head than did the High Caucasian group.

The use of the passive voice presented significantly less difficulty for the High Caucasian and Low Caucasian subjects than for the Low Negro subjects. The latter group reversed the agent to a significantly greater extent.

The Low Caucasian and Low Negro subjects had significantly greater difficulty in comprehending items in the passive voice and in omitting auxiliary verbs from the sentence than did the High Caucasian subjects.

The Low Caucasian group had significantly less difficulty than the Low Negro group in comprehending items using the past tense, the present progressive tense and the simple present tense. The Low Negro group also had greater difficulty than the High Caucasian group in comprehending the items using the present progressive or simple present.

The Low Caucasian and Low Negro subjects were found to insert the direct object in simple sentences with significantly greater frequency than High Caucasian subjects. The Low Negro subjects were also found to insert the negative in sentences to a significantly greater extent than either High or Low Caucasian subjects. The High Caucasian subjects inserted movables of place in the sentence response significantly less often than did the Low Negro subjects.

Significant variation was thus evident in the comprehension and production of selected syntactical items for subjects in the different socio-ethnic classifications.

The fourth hypothesis of the study was designed to explore the relationship between the early first grade performance of the subjects on the syntax test and their sentence meaning comprehension, paragraph meaning comprehension, and vocabulary achievement at the end of grade one. The data from the correlational analysis are presented in Table 3.

Two correlation coefficients were found to be significant for the High Caucasian subjects. These correlations were between the syntax variable and the variables of sentence meaning comprehension and vocabulary achievement and were found to be .60 and .84 respectively.

TABLE 3

CORRELATION COEFFICIENTS BETWEEN SYNTACTICAL LANGUAGE DEVELOPMENT AT THE BEGINNING OF GRADE ONE AND SELECTED LANGUAGE VARIABLES AT THE END OF GRADE ONE FOR HIGH CAUCASIAN, LOW CAUCASIAN AND LOW NEGRO SUBJECTS

	Subject Category	Sentence Meaning Comprehension	Paragraph Meaning Comprehension	Vocabulary Achievement
Syntax Scores	HC (10)	.60*	.27	.84*
	LC (10)	.07	.18	.47
	LN (10)	.01	—.12	.29
	TOTAL (30)	.68*	.41*	.67*

*Significant at the .05 level.

The correlation coefficients for the total sample between the syntax test scores and the scores on sentence meaning comprehension, paragraph meaning comprehension, and vocabulary achievement were found to be .68, .41, and .67 respectively. The remaining correlation coefficients were found to be comparatively low and were not of sufficient magnitude to reach the level required for significance.

Because of the small sample size these correlational findings can be considered only suggestive in nature. It can be concluded from the total group correlations that children's control over designated aspects of their syntactical language system is significantly related to their sentence meaning comprehension, paragraph meaning comprehension, and vocabulary achievement. This conclusion, however, cannot be applied to the socio-ethnic subgroups. Only in the High Caucasian group were significant correlations found. The comparatively low and nonsignificant correlation coefficients for the Low Caucasian and Low Negro groups suggest that the syntax variable accounts for little of the variance in the sentence meaning, paragraph meaning, and vocabulary scores. In the High Caucasian group, however, the syntax variable accounts for approximately 36 per cent of the variance in the sentence meaning comprehension scores and approximately 70 per cent of the variance in the vocabulary achievement scores. Additional research is necessary in exploring the causal nature of these relationships.

Summary and Conclusion

The objectives of this study were first, to study the relationship between children's ability to comprehend and produce selected syntactical items and their socio-ethnic classification, and second, to explore the relationship between first grade children's control over selected aspects of their syntactical language development, measured at the beginning of grade one, and their achievement on the variables of sentence meaning comprehension, paragraph meaning comprehension and vocabulary achievement at the end of grade one.

The following conclusions are based on the findings of the study.

1. The High Caucasian subjects do not demonstrate significantly greater control over the selected aspects of syntactical language development than the Low Caucasian subjects, although the difference closely approached the critical significance value. The High Caucasian subjects demonstrate significantly greater control over the selected aspects of syntactical language development than Low Negro subjects.

2. The Low Caucasian subjects do not demonstrate significantly greater control over the selected aspects of language development than Low Negro subjects.

3. Low Caucasian and Low Negro subjects have greater difficulty than High Caucasian subjects in the comprehension and production of sentences containing noun and verb inflectional endings, and auxiliary verbs. The two former groups of subjects also experience greater difficulty than the latter group in comprehending and producing sentences in the passive voice, and exhibit a greater tendency to insert direct objects in simple subject-verb sentences. Low Negro subjects have greater difficulty than either the High or Low Caucasian subjects in comprehending and producing sentences

containing third person possessive pronouns, and in processing sentences written in the present progressive or simple present tense. The former subjects also have greater difficulty than the Low Caucasian group in comprehending sentences written in the past tense.

4. Sentence meaning comprehension, paragraph meaning comprehension, and vocabulary achievement are a function of the control which the subjects exhibit over the designated aspects of their syntactical language system. For High Caucasian subjects, the syntax variable accounts for a significant portion of the sentence meaning comprehension and vocabulary achievement variance. For Low Caucasian and Low Negro subjects, however, the syntax variable accounts for a low nonsignificant part of sentence meaning comprehension, paragraph meaning comprehension, and vocabulary achievement variance.

This study represents an attempt to provide increased insight into language variables of children which may contribute to the improvement of reading achievement. Additional analysis currently in progress with a fivefold larger sample should enable the investigator to support or reject the conclusions of this study with greater certainty.

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2. An Instructional Strategy for Developing Conceptual Responses in Reading Readiness

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READING READINESS programs can be classified into two broad categories. The first, described by Sheldon (Sheldon and Durkin, 1963), is typical of some widely used basal reader readiness programs (Russell and Ousley, 1957; Gray, Monroe, and Artley, 1956; and Sheldon, Mills, and Mower, 1957), which stress perception of pictured objects, characters, environment, and oral language development. Many of the words used in this program recur in the primer and subsequent books in the series. Consequently, a laudable feature of this program is its curricular specificity since the content of the reading readiness program is extremely well articulated with subsequent basal reader instruction. Although all of the variables included in the basal reader readiness program provide a necessary foundation for subsequent reading instruction, an essential variable that is missing from these programs is instruction in the *perception of printed words.*

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There is considerable evidence of the necessity for specific development of perception of *printed* words. In his classic study, Gates (1926) concluded that perception is not a unitary function because the intercorrelations among perception of numbers, geometric symbols, and printed words were quite low. The implication from his study appears to be that perceptual training on materials other than printed words is not likely to develop the ability to perceive printed words. For example, a pupil could become quite adept at perceiving and discriminating pictures of objects, but still be quite poor at word discrimination or word matching.

It is not ability to respond accurately to pictures or geometric forms, but perception of visual representations of verbal stimuli that is the best predictor in a reading readiness test battery for subsequent reading achievement at the first grade (Balow, 1963b; Barrett, 1965). When discrimination training is given on printed words, particularly those that will be met later in the reading program, there is likely to be positive transfer for recognition of these words (Staats, Staats, and Schutz, 1962). Therefore, if readiness for reading instruction is primarily the resultant of training, then these data imply that emphasis in reading readiness programs should at least be on the association of printed words to objects and actions.

Thus, there is empirical support for the second type of readiness program, an "exposure curriculum" (Durkin, 1962) in which perception of printed words occurs in conjunction with typical activities of the kindergarten curriculum (Durkin, in Sheldon and Durkin, 1963). Although the exposure curriculum adds perception of printed words to the skills usually taught in a reading-readiness program, it lacks the sequential specificity of instruction that is emphasized in the basal reader readiness program. Such sequential specificity is necessary, if a *structure* of reading ability is to be systematically developed (Bruner, 1963; Singer, 1965b).

Another important variable which should indeed be part of a reading readiness program is word symbol orientation. Many first grade children manifest faulty perception of printed words; they especially err by making reversals of all types (Potter, 1949). Several theories have been advanced to explain such reversals. Orton (1928) postulated faulty neural organization as the cause of strephosymbolia, literally "twisted symbols." Delacato (1959), essentially in agreement with Orton, ascribes the cause of such faulty neural organization to non-lateralization or mixed dominance, the result of inadequate or inappropriate motor development. The weight of evidence so far is against such neurological and motor theories as explanations of reversals or for poor progress in reading achievement. For example, laterality measured in the first grade is not predictive of reading achievement in either the first or second grade (Balow, 1963a; Balow and Balow, 1964). Furthermore, Potter (1949, pp. 59-60) reported that "some mediocre word perceivers, regardless of handedness, sufficiently improved their directional word perception orientation to become good readers during the first grade."

Another explanation can be postulated to account for some word reversals: since children encounter printed words in a variety of ways before formal reading is initiated (for instance, in grocery labels, intersection and store signs, television commercials, and in printed media in their homes), they may devise ineffective and inappropriate word perception techniques, including reversals, in responding to these printed words. Hence, earlier guidance in the appropriate left-to-right word orientation might reduce the degree of reversals observed in first grade pupils.[2]

Although reading readiness is frequently instituted at the beginning of first grade, there is no evidence that reading readiness should necessarily begin at first grade for all children. Some time ago, Morphett and Washburne (1931) reported that a mental age of six years and six months is necessary for a high percentage of success in initial reading instruction at the first grade level. But, their prediction probably holds true only for the particular reading program and criterion of success used in the Winnetka instructional plan of 21 graded steps. In comparison, Gates, Bond, and Russell (1939) found there are many factors involved in predicting reading readiness, only one of which is mental age. Balow (1963b) observed that a reading readiness test rather than an intelligence test is a better predictor of subsequent reading achievement. Several investigators have demonstrated that children could successfully begin reading instruction at an earlier age (Gates and Boeker, 1923; Davidson, 1931; Moore, 1961), and not necessarily on those children with high mental ages (Durkin, 1962). Indeed, it has already been demonstrated that at least some kindergarten children can profit from more advanced reading instruction than that which is usually given at the kindergarten level. For example, the McKee *reading* materials as compared with the Sheldon *reading readiness* materials, used in kindergarten on two groups of children whose IQ's averaged 112, was at least sequentially related to approximately three-fourths of a year acceleration when both groups were retested in grade two (Kelley, 1966).

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[2] This hypothesis is currently being tested (Singer, Balow, and Dahms, 1966).

Therefore, there is no valid reason for not initiating a reading readiness program at kindergarten and an even more advanced type of instruction for those kindergarten children who are precocious in reading achievement (Singer, 1965a). At least the range of individual differences in reading aptitude and achievement in knidergarten implies that differentiated instruction, which covers a range from "language development in a comparatively unstructured environment" (Sheldon, 1963, p. 17) to the inception of a developmental reading program, would be necessary if children in kindergarten are, in fact, to be *paced* rather than forced *or* delayed in reading (Olson and Hughes, 1944).

Although it is still a controversial issue (Sheldon and Durkin, 1963), reading readiness programs are being introduced at the kindergarten level (Gunderson, 1964). The debate seems to be shifting from whether reading readiness should begin at the kindergarten level to what should be the most appropriate type of reading readiness program to initiate at the kindergarten level. However, the instructional strategy proposed in this paper is not necessarily tied to the kindergarten level, but is appropriate for reading readiness whenever it is initiated. This instructional strategy of developing conceptual responses to printed words, of course, would then continue with appropriate modifications throughout reading instruction.[3]

Conceptual Response to Printed Words

The rationale for the development of a conceptual response to printed words is consistent with the definition of a concept and an explanation of concept formation, as formulated by Russell (1956, pp. 117, 248-249): "Concepts develop out of related perceptual experiences. . . ." They are "the means by which a child or adult represents anything to himself and thereby creates a readiness to respond with a particular type of behavior." The process of concept formation involves "discrimination . . . plus generalization or response to common elements in object or situation, the percepts, memories, and images are integrated into a concept."[4]

A conceptual response in reading then can be defined as an intermodal communication system of ideas, percepts, memories, and images which are mobilized in response to the value-determined purposes of the individual and the stimulus-demands of the printed word (Holmes, 1959; Athey, 1965). In this communication system, experiences acquired in one modality are "taught" to or associated with another modality, kinesthetic to auditory and auditory to visual. Thus, there can be an accumulation of developmentally acquired meanings which can be mobilized as a mediational response to printed word stimuli (Holmes, 1957).[5] Moreover, a conceptual response system formed at an early age would serve as an "advance organizer" (Ausubel, 1960) to facilitate subsequent learning and retention.

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[3] There are already some materials which are quite appropriate for the development of a conceptual response to printed words at different grade levels. For example, at the kindergarten-first grade level, Udry's (1957) book, which won the 1957 Caldecott Medal, develops a conceptual response to the printed word, "tree." At the high school level, the concept of "courage" is clarified and enriched in Burton and Dunning's (1960) unit by having students read and interpret a variety of books on the theme of courage, such as *Profiles in Courage* and *The Red Badge of Courage.*

[4] A broad definition of "common elements" would include responses based on relational, conjunctive, and disjunctive categories (Bruner *et al.*, 1956) and transformational equivalents for integrating otherwise unrelated items (Bruner and Olver, 1963) such as the higher-order abstractions necessary for obtaining the central thought of a passage (Singer, 1964).

Development of such a transactional system (Davis, 1964) could and probably does occur in many pupils without specific instructional intent. However, the thesis proposed in this paper is that the development of a conceptual response system can be facilitated or accelerated by means of a *deliberate* instructional strategy. This strategy at the reading readiness level consists of the formation of kinesthetic, auditory, and visual associations to a class of objects in close temporal contiguity with each other and with the printed symbol which represents the objects. Perhaps the printed symbol could be displayed on the side of each object. Then, through discussion of experiences, visual perception and discrimination, manipulation of objects and actions on the objects, and tactual-kinesthetic perception of the stimulus features of the printed word with emphasis on the word's left-to-right order, the common elements in each modality could be abstracted and generalized. The strategy would thus include (a) all the variables listed in the reading readiness programs described by Sheldon and Durkin plus kinesthetic responses to printed words, *e.g.*, tracing over the word, and word symbol orientation, (b) association of these variables to each other and to their corresponding object class and printed word symbols, and (c) curricular specificity in which the printed word symbols are those which will also be presented in the next stage of reading instruction at which time pupils will be taught and expected to learn these words as "sight words." For example, a particular lesson may be about the concept "boat." The children will see a variety of actual boats or pictures of boats, talk about them and any characters associated with them, learn something about boats, discover what is true about all the boats, and see and perhaps trace over the printed word "boat" in association with these experiences.

As lessons progress, children could also have the opportunity to gain flexibility in mobilizing conceptual responses by switching from one conceptual organization to another, perhaps by forming two groups of objects that have previously been experienced separately and are now intermixed. The printed words which correspond with two sets of objects can serve as the basis for grouping the objects, with the original word identification on the objects removed.[6] This separation of the two groups could also provide a test of the attainment of a conceptual response.

At the reading readiness stage of instruction, however, no deliberate attempt would be made to have children remember and respond to printed symbols in isolation nor would any attempt be made to drill children on particular words. Therefore, this reading readiness program for developing conceptual responses can in no way be categorized as a formal reading program. Its objective at the reading readiness level is only to provide for the incipient development of a conceptual-response system in which experiences to a class of objects are associated with each other and with the printed word.

By presenting related elements of a

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[5] The enactive, iconic, and symbolic categories of mental functions formulated by Bruner (1964) seem to correspond with the developmental stages of thought postulated in Piaget's (Inhelder and Piaget, 1958; Inhelder, 1963) theory of cognitive development. As these functions emerge, they could be integrated via a spiral-type of curriculum into an individual's conceptual response system for reacting to printed word stimuli.

[6] A variety of games and rhymes can be devised for conceptual organization in response to printed words. For example, Mrs. Shirley Marley, a kindergarten teacher in San Bernardino, California, uses a concept-formation technique in which children recite a refrain of "Barnyard, barnyard, what's in the barnyard?" as she flips over a picture showing another animal in the barnyard. In this lesson only the printed word would have to be added to the game to facilitate initiation of a conceptual response to the printed word.

word in close temporal contiguity to each other and their corresponding symbolic stimulus, this instructional strategy aims to provide the foundation not only for an integrated response system but also for interfacilitation among these elements. Subsequent perception and recognition of printed words as well as specific attributes of objects and words could be built upon this foundation (Bruner, *et al.*, 1956; Singer, 1965c). Thus word meaning or concepts could be emphasized along with criteria for word recognition. Such a reading program would certainly fit into a theory of human learning for teaching reading (Singer, 1965d).

A schematic diagram of one subsystem is presented in Figure 1. The diagram shows the various elements, such as percepts, images, memories, information, feeling tone, and other elements that can be mobilized as a conceptualized response to a printed word stimulus (Russell, 1956; Singer, 1960, 1965c).[7]

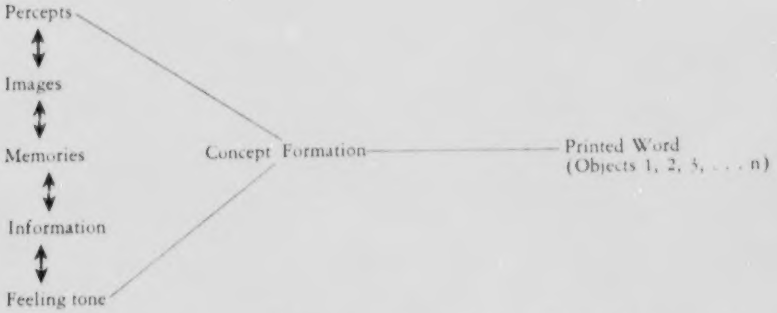

Figure 1. A subsystem of related elements mobilized as a conceptualized response to a printed word stimulus that represents a class of objects. (Modified, after Russell, 1956.)

This subsystem may be explained in terms of localization theory (Nielsen, 1951): engrams are developed in specialized areas of the brain which correspond to various components such as kinesthetic, auditory, visual images, and feeling tones for words. By presenting these components of a lesson in temporal contiguity to the printed word, a phase sequence of cell assemblies (Hebb, 1949) is developed in which the associated elements communicate with or "teach each other" (Holmes, 1957) and thus yield maximal interfacilitation in response to the printed word.

Summary

The conceptualized response reading readiness program constitutes the first stage in the sequential development of an hierarchically organized working system that can be mobilized for attaining speed and power of reading (Holmes, 1953; Singer, 1962, 1965b). In this initial stage of reading readiness, each lesson is designed to contribute to the development of a subsystem or conceptualized response to the printed word.[8] This subsystem can be described as a communication system of mutual interfacilitation for responding to the printed word.

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3. The Effect of Training in Listening on Reading Achievement

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THERE ARE FOUR rather clearly defined facets of the language arts—reading, writing, listening, and speaking. Anderson *(1)* refers to these areas as "reciprocal processes of communication." The act of communication involves two distinct acts: transmission and reception. Speaking and writing can be considered to be tools of transmission, while reading and listening serve as instruments of reception. The matter of immediate concern in this paper is the interrelationship between reading and listening and the effect that one has on the other. Since there is evidence to indicate that reading and listening are closely related, the question has often been asked: Will training in listening improve one's reading abilities?

The Relationship of Listening and Reading

It is held here that reading and listening are somewhat analogous processes in that each involves the act of perception and that these two receptive skills are closely related. This position is supported by the researches of Dow *(4),* Hampleman *(5),* Cleland and Toussaint *(3),* Austin *(2),* and Vineyard and Bailey *(7).* For example, Dow *(4)* reported approximately eighteen factors of reading comprehension that seem sufficiently similar to listening 'comprehension to consider these two skills closely related. Also, Cleland and Toussaint *(3)* found that of several selected tests of reading achievement, listening, arithmetic comprehension, and intelligence, the measure showing the closest relationship with reading was the STEP Listening Test.

Since reading and listening do appear to be closely interrelated, it has often been hypothesized that any program designed to improve listening ability will result in a concomitant improvement in reading achievement. The rationale in back of this assumption is that reading is a kind of mental listening. When you listen to someone talk, you hear a continuous flow of words with your ears which, in turn, is translated into meaning by the mind. That is to say, we hear with our ears; we listen with our minds. In the case of reading, on the other hand, we do not listen with our ears; we scan the printed symbols on the page with our eyes, and these symbols, in turn, must be translated into meaning by the mind. In both cases one must be attentive to the medium of transmission: speech sounds on the one hand and printed symbols on the other. In either case interpretation is a mental act and one must attend to the symbology in order for the mind to have anything to interpret.

Many individuals fail to interpret properly when they read or listen to someone talk because they suffer from what might be termed "chronic inattention." That is, they take mental excursions when they are supposed to be listening or reading. Such lapses of attention can become habitual.

Research has clearly indicated that listening skills can be improved through proper training. It seems reasonable, therefore, to assume that if one can learn to improve his comprehension of materials he listens to or that are read to him, one should be able to understand similar materials by reading them himself. The assumption is that if one learns to be more attentive when listening to oral expression, the same skill should transfer to the act of reading.

The Problem

Out of such reasoning has grown the question: Will training in listening improve one's reading achievement?

Although a number of studies have indicated an affirmative answer to this question, there appears to have been ample justification for replication because of failure in some instances to take into account certain factors which may have tended to contaminate the findings. For example, (1) providing listening training but failing to show that skill in listening actually improved as a result of the training; (2) failing to take into account the effect of instruction in reading received by the subjects during the period when training in listening was being provided; (3) the effect of teacher personality and elements of oral style when several teachers provided listening exercises; and (4) failing to establish a minimal reading level for subjects in the studies. In regard to establishing a desirable minimal reading level for subjects in a study of this nature, it appears likely that the effect of listening training on the reading achievement of a retarded reader who might be struggling with the mechanics of word recognition would, in all probability, be negligible.

In a recent study *(6)* conducted under the direction of the writer, an attempt was made to control as many of these variables as possible. The study was designed to test the following hypotheses:

1. There is no significant difference in the amount of gain in auding achievement between eighth-grade pupils who receive training in listening and those who do not.
2. There is no significant difference in the amount of gain in reading achievement between eighth-grade pupils who receive training in listening and those who do not.

The Procedure

Standardized tests of reading achievement, listening, and intelligence were administered to 223 eighth-grade pupils at the outset of the study for purposes of selecting experimental and control groups and to serve as bases for measuring change in reading achievement and listening ability at the termination of the study.

From this population two groups were chosen, one to serve as an experimental group and the other as a control group. The following conditions were considered in the selection of the groups:

1. Both experimental and control groups should have basically the same instructional program except for the training in listening for the experimental group.
2. Because of the influence of the mechanics of reading, no subject should have less than a 6.5 grade level score on the standardized

reading achievement test.

3. The subjects should receive no formal reading instruction during the period of the study.

In order to satisfy all of the above criteria, the experimental and control groups consisted of 74 and 79 subjects respectively. These groups were comparable from the standpoint of reading achievement, listening ability, and intelligence at the outset of the study.

The next step involved the development of a series of exercises designed to improve listening ability. Two conditions were set as criteria in the construction of the training exercises: (1) the exercises must instruct the subjects in how to listen, and (2) they must direct attention to the various abilities which are now believed to constitute the process of listening. Twenty-six such exercises were developed and were pre-taped to eliminate the influence of teacher personality and elements of oral style.

The exercises were then administered to the experimental group at the rate of three per week for a period of nine weeks. No formal reading instruction was provided for either group during the period of the study. Except for the listening exercises, the school programs for the two groups were basically the same.

Upon the completion of the auding training program, alternate forms of the standardized tests of listening and reading achievement were administered to both the experimental and control groups and gains in reading achievement and listening skill were calculated.

Using the mean gains in listening and reading achievement of the experimental and control groups, critical ratios were calculated for the purpose of testing the hypotheses set forth in the statement of the problem.

Conclusions

Changes in listening ability. Although both the experimental and control groups improved in listening ability during the period of the study, the gain made by the experimental group was significantly greater (.01 level of confidence) than that of the control group. The superiority of the experimental group in listening ability at the termination of the experiment appeared to be due to the listening training exercises.

Changes in reading achievement. Both the control and experimental groups made gains in reading achievement during the period of the study. However, the mean gain of the experimental group was significantly greater (.05 level of confidence) than that of the control group. Thus it can be concluded that the difference in favor of the experimental group probably could be attributed to their improved listening ability, or, in any case, to the training program which purported to develop the listening skills.

The effect of training in listening on specific aspects of reading. When specific aspects of reading, as measured by the instrument employed, were considered, it was found that there was a significant difference in growth in paragraph comprehension and ability to alphabetize between those who received the listening exercises and those who did not, with the former making the greater gain. On the other hand, there was no significant difference between the gains of the two groups in rate, rate-comprehension, directed reading, word meaning, sentence meaning, and the use of the index. However, in each of these sub-skills the difference in the gain that was made was in favor of the group which had the training in listening. It appears likely, therefore, that although the differences were not significant, each did contribute something to the over all change in reading achievement, which was statistically significant.

Implications

The findings of this study suggest that more attention should be given in the school program to the improvement of listening skills. One can reasonably assume that a concentration of effort in which a variety of materials is employed to bring about growth in the diverse abilities comprising the process of listening will influence not only skill in listening to oral speech but also the total act of reading.

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4. Recent Research in Visual Discrimination: Significance for Beginning Reading

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MANY SYSTEMS of beginning reading instruction use the so-called "sight-word" approach to introduce children to their first reading material. The children are presented with a basic set of words which they learn to read. Later these words provide the basis for formal instruction in word analysis skills including structural and phonic analyses.

Learning sight words is an association process. As such, certain general factors are known to affect the ease with which the association is learned. First, the responses to be learned must be available and readily discriminated from one another. Secondly, the stimuli to be associated with the responses must be discriminated so that recognition is consistent for each appearance of the same stimulus.

In teaching reading, we have been well aware of the importance of making reading responses readily available. This has been done by selecting beginning reading words that are of high frequency in children's speech. Unless children have culturally disadvantaged or culturally different backgrounds these words are available; at most, we need to provide some auditory discrimination training to sharpen discriminations among similar sounding words.

The stimuli or printed words in beginning reading present an entirely different problem. In the beginning these graphic patterns are not readily discriminable or consistently recognized. Assuming the beginning reader has the spoken responses available, he is faced with two learning tasks with respect to these graphic patterns. First, he must learn to discriminate among the visual symbols; second, he must learn to associate each of the graphic patterns with an appropriate spoken word.

This paper is concerned with the kinds of training that are most effective in helping children learn to discriminate among graphic patterns. Our purposes are twofold: to present an overview of the research bearing on this question of discrimination learning and to suggest implications for teaching which seem warranted on the basis of this research. We say, "suggest implications" advisedly, since the majority of the research cited will be experimental in nature. This means that it was carried out in highly controlled and artificial circumstances. For this approach we make no apology. This step in educational research is imperative in order to assess, unambiguously, the operation of certain factors in the learning process. However, this type of research can only be a beginning. Experimental research needs to be followed up with classroom studies to determine whether or not the manipulations and variables which produce significant effects in experimental situations will also produce differences in the classroom that are *practically* as well as statistically significant.

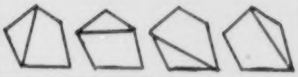
Historical Development

Before we look at the recent research in discrimination learning, it would be useful to review briefly the history relating to the question of how children see words, particularly why whole words have been considered the child's "natural" unit of perception *(14)*. Several sources have contributed to this thinking. American educators writing in the 1850's opined that words are more easily remembered than letters because they are not such minute objects and because they are more meaningful. At the turn of the century, Huey *(6)* cited evidence from tachistoscopic research using adult subjects indicating that word "form" was the critical cue for perception. In 1922, Buswell's *(1)* studies of eye movements showed that the mature reader seemed to organize his reading perceptions by words and even phrases. Although the data from tachistoscopic and eye movement research could be used to support the "whole-word view," these same studies also showed that as the reading material became more difficult, or when young and inexperienced readers were used as subjects, discrimination of words proceeded mostly on a letter-by-letter basis. The historical clincher for the "whole word" approach, however, appears to be psychological theory, not experimental evidence. In 1924, Max Wertheimer, the Gestalt psychologist *(3)*, stated that the whole is greater than the sum of its parts, and that the form or grouping that is most natural is the one which involves the smallest interval. Since words are letter groupings set apart spatially from other words, this theory seemed to provide the answer to word perception.

Recent Research

What does more recent research say about how children learn to discriminate visually among words? Our research with prereaders takes its beginning where Goins left off *(5)*. Goins' study was the first that made a systematic attempt to train first grade children in visual discrimination. The fact that the results of her tachistoscopic training with non-verbal type visual stimuli did not facilitate reading performance suggested the need for visual discrimination training with stimuli that are immediately relevant to learning to read; namely, printed words and letters themselves. Our first study *(11)* confirmed the specificity of transfer in the area of reading (Table 1). Three groups were given visual discrimination training or matching practice with three types of material: words that appeared on a subsequent reading task, words that did not appear on the subsequent reading task, and geometric forms. The results on the reading test favored the first group that had practiced discriminating among the same words that appeared on the reading task. Since there was no difference between the geometric and different word group, the results indicated that what is learned in discrimination is very specific and that this learning transfers

TABLE 1
TYPE OF TASK AND ORDER

First		Second
Visual Discrimination Training (Matching)		Reading Words
Groups	Materials	All groups
Same	boat, help, play, come	boat help play come
Different	make, jump, work, find	
Control		

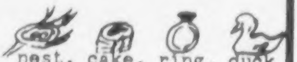
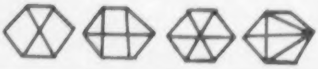
only when the words in the reading task are highly similar to those in discrimination training. These results raised the question: What specifically are the children attending to as they learn to discriminate among words? Is it the "form" or shape of the word as a whole, or is it individual letters within the word? A study designed to assess these factors *(12)* showed two interesting findings (Table 2). First, word shape or form did not seem to be an important cue to kindergarten children in discriminating among words. Specific letter differences between the words seemed to be the significant cue. Second, although discriminating letters in isolation was much easier than discriminating letters embedded in words, the isolated letter group did just as well on the reading test as did the groups that had discriminated the letters in the words. A similar study by Staats, Staats, and Schutz *(15)*, however, failed to confirm these findings. They found that visual discrimination training using the whole words was more effective than training with the letters in isolation. Professor King's doctoral dissertation *(7)* attempted to resolve these conflicting findings. Her study design is shown in Table 3. It is important to note the difference between the visual discrimination training group with different meaningful words and the other groups. In this group, the children saw a picture of the word when the word was first presented and, in addition, the word was pronounced. The results showed two groups clearly superior in their word reading performance: the different meaningful word group and the relevant letter matching groups. In visual discrimination training, the letter matching task was the easiest of all; the different meaningful word most difficult. What skills transferred from these two different types of training? The different meaningful word group presumably learned that it is appropriate, to respond to printed stimuli with meaningful responses, which, after all, *is* reading. By contrast the letter group apparently learned to attend to the visual features that provided a basis for discriminating among the words. A subsequent study by the Cornell group *(9)* indicated that training with the letter at the beginning of a word is relatively more effective than with letters that occur in other positions. Another factor we attempted to assess was the relative effectiveness of presenting the materials in the matching tasks either simultaneously or successively *(7)*. Table 4 shows the difference in these two approaches. In the top example, the matching stimulus is presented at the same time as the re-

TABLE 2

TYPE OF TASK AND ORDER

First		Second
Visual Discrimination Training (Matching)		Reading Words
Groups	Materials	All groups
Same form	feu, geu, reu	feu - "blue"
Different form	fjd, gjd, rjd	geu - "red"
Letters only	f, g, r	reu - "white"

TABLE 3
TYPE OF TASK AND ORDER

First		Second
Visual Discrimination Training (Matching)		Reading Words
Groups	Materials	All groups
Different word (meaningful)	 nest, cake, ring, duck	hand
Different word	nest, cake, ring, duck	coat
Same letters	h, a, n, d, c, o, a, t, g, i, r, l, s, h, o, e.	girl
Same word	hand, coat, girl, shoe	shoe
Control		

sponse choices; in the bottom example, the matching stimulus is presented first and then removed before the response choices are presented. We found no reliable differences between these two methods of matching as measured in performance on the reading task.

TABLE 4
TYPES OF VISUAL DISCRIMINATION TASKS

Simultaneous (same page)

hand	hand	coat	girl	shoe

Successive (different page)

hand				
	hand	coat	girl	shoe

Positive transfer to reading resulting from associating a meaningful picture with a word in visual discrimination training led to the question: What is the most effective combination of cues for helping children learn sight words? The study designed to answer this question *(8)* is shown in Table 5. Children were asked to learn to read two lists of words. In one list, the words were highly similar in sound and appearance; in the other list, highly dissimilar in sound and appearance. The same table also shows the different combination of cues that were used in teaching the words to different groups of children. In each group the printed word was always presented. In

TABLE 5
TRAINING GROUPS

Training	Kinds of Words	
Printed word +	Dissimilar (gate, drum, nest, fork)	Similar (doll, ball, bowl, bell)
Picture	Group 1	Group 2
Auditory	Group 3	Group 4
Picture + Auditory	Group 5	Group 6
Auditory + Echoic Response	Group 7	Group 8
Picture + Auditory + Echoic Response	Group 9	Group 10

addition, the words were accompanied by one or more additional cues. For example, in groups three and four, the printed word was accompanied by the teacher's saying it and the child repeating it. In groups nine and ten, the word was accompanied by cues provided by a picture, the teacher's saying the word, and the child's saying it. After each of the four words and accompanying cues were presented to the various groups, a test trial was given using the word alone, with the child trying to recall the correct response. The results at the end of the learning session are shown in Table 6.

TABLE 6
MEAN NUMBER OF CORRECT RESPONSES

Training Method: Printed Word +	Word Groups (gate, drum, nest, fork) Mean	Rank	Word Groups (doll, ball, bowl, bell) Mean	Rank
Picture	18.62	5	12.62	1
Picture + Auditory	20.94	4	11.86	2
Picture + Auditory + Echoic Response	21.14	3	11.43	3
Auditory + Echoic Response	22.10	2	11.19	4
Auditory	23.38	1	7.67	5

They indicate that when words were highly similar, additional cues helped the child discriminate and recall the printed word and sound association. Thus, groups 1-4 were reliably better in performance than the group that just heard the teacher say the word. For the dissimilar word groups, just the opposite order resulted. Hearing the word alone provided the best learning condition while the picture cue provided the least effect method. Since it is likely that most printed words appear more similar than different to the beginning reader, it would seem safe to conclude that the use of pictures and other accompanying cues will be helpful in mastering sight vocabulary.

One final area of our research remains for summary. The question can be asked: If training in discriminating among letters facilitates word discrimination and reading, what effect does knowledge of the letter-names have on this process? The results of a study just completed are shown in Table 7 *(13)*. The columns represent above and below the median groups based on the Harrison-Stroud letter-naming subtest administered in September of first grade. The rows represent extreme reading groups (matched in IQ) based on end-of-first grade year Metropolitan reading test performance. Letter-naming ability appears to be markedly associated with later reading success. No child below the 50th percentile in letter-naming ability was in the high reading group. Twice as many children above the 50th percentile appeared in the high as compared to the low reading group. These results support Durrell's *(2)* earlier findings. We are not certain whether this relationship indicates that *training* in the knowledge of letter-names would facilitate word discrimination and reading, or whether knowledge of letter-names is an indication of a basic ability to form associations between abstract visual stimuli and auditory sequences. Durrell's methods study involving teaching letter-names and sounds supports the training notion.

TABLE 7
DISTRIBUTION OF HIGH AND LOW READERS ON THE HARRISON-STROUD LETTER-NAMING CONTEST

	Giving Names of Leters	
	Lowest 50%	Highest 50%
High readers	0	24
Low readers	13	12

Implications for Teaching

Keeping in mind that we are now moving from controlled experimental situations to the classroom, the results of this experimentation appear to have some practical implications for the classroom teacher.

1. Visual discrimination training from the very beginning should be with word and letter stimuli. Having the child match animal pictures, geometric forms, or any kind of non-verbal graphic stimuli does not appear to transfer to word discrimination. Our data confirms a point of view expressed by McKee *(10)* almost 20 years ago.

2. The simultaneous matching format which exists in most prereading books and charts at the present time seems adequate. To date we have found that simultaneous matching is easier than successive matching and that the transfer of discrimination learning appears to be about as effective.

3. Since matching letters is an easy task for kindergarten children, the earliest visual discrimination exercises should use letter stimuli. Although we do not as yet know how knowledge of letter-names works in the discrimination and reading process, the evidence strongly indicates that teaching the letter-names is probably highly useful. Letter discrimination and naming can be taught simultaneously.

4. Just prior to beginning reading instruction, visual discrimination exercises should include training in making the "three-way association" of the sound and the meaning with the visual form. If words are accompanied by a representative picture (when possible) and the pronunciation of the word, then a child gradually learns to attach a meaningful verbal label to the printed word each time it is encountered in a matching exercise. Such training provides not only for skill in visual discrimination but also skill in responding to graphic symbols in a manner similar to that required in learning to read.

5. Since the transfer of visual discrimination training seems to be very specific, the teacher would do well to give children practice in discriminating among the new words to be learned at the beginning of a reading lesson. At this point, a successive presentation could be used in the discrimination training. This type of presentation demands greater attention to the words in order to recall their letter characteristics since the word is not in view when the choices are presented.

6. When presenting new vocabulary words, particularly words that are easily confused with other words because of sound and letter similarities, providing additional cues in the form of pictures, when possible, and having the children pronounce the words will probably facilitate learning.

If the above research has answered a few questions, it has raised many more. Much investigation needs to be done. We hope to continue our efforts.

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5. Increasing Boys' Reading Achievement through Instructional Materials

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IN 1885, JAMES RUSSELL LOWELL wrote "Reading is the key that enables us to see with the keenest eyes, hear with the finest ears, and listen to the sweetest voices of the ages." We who teach children to read know only too well the truth of this statement. We know also that reading is one of the most complex tasks that man has ever devised for himself.

In this complex task, reading is a golden key because, in essence, it opens the door to endless opportunities. As some of the boys in the research have said, "You can live a thousand lives and do a thousand things if you can read a thousand books." But the key is golden only to the degree that it is usable. Reading is a golden key only when one can learn to read effectively to accomplish a variety of goals and purposes.

Fewer boys than girls, in our society, learn to use reading as a "golden key." The statistics from many schools indicate that boys have more difficulty than girls in learning to read. In fact, large school systems report that, at the upper elementary level, the boys make up 75 per cent to 80 per cent of all reading disability. Enrollment figures from reading clinics show that boys compose over 85 per cent of the students in classes for reading improvement.

Background of the Research

This problem of the disparity between the reading achievement of boys and girls is not a new one. Ayres was one of the first to call attention to sex differences in school achievement. In his book, *Laggards in Our Schools*, published in 1909, he pointed out that 12.8 per cent more boys than girls repeated grades; that 17.2 per cent more girls than boys completed "common school" (8th grade).

In the decades since Ayres' book was published, there have been numerous studies giving evidence of the differences in the reading achievement of boys and girls. During the 1940's, one of the largest research projects on sex differences in school achievement was conducted by Stroud and Lindquist with 50,000 pupils in more than 300 schools in Iowa. With the Iowa Every-Pupil Basic Skills Test, students in grades three through eight were tested on reading comprehension, vocabulary, word-study skills, basic language skills, and arithmetic skills. The researchers stated that "girls have maintained a consistent and, on the whole, significant superiority over boys in the subjects tested, save arithmetic, where small insignificant differences favor boys *(2)*.

Arthur Gates was one of the first to question whether or not there might be something in the school situation or social setting which militated against the reading success of boys. In 1961, Gates analyzed the reading test scores of 6,646 boys and 6,468 girls in grades two through eight in the New York City schools. The boys and girls were approximately typical in intelligence, scholastic aptitude, and other pertinent factors. The results showed that the scores of the girls were significantly higher than those of the boys at all grade levels. Gates felt that the poorer showing by the boys on the tests indicated an environmental rather than a hereditary explanation. Perhaps more girls than boys experienced life situations in which there were greater opportunities, incentives, and respect for reading. Because of the different role conceptions in our culture, the boys may have failed to be motivated by a feeling of the importance of the reading act. Perhaps, too, boys were less interested in the school routines and materials of instruction than were girls *(1)*.

What, then, are some of the factors that might affect success in beginning reading?

Over the past four years, the writer has been engaged in research with approximately three hundred first-grade children each year in the Los Angeles City Schools. The purpose of the research has been to experiment with a variety of materials and methods in teaching beginning reading to determine the effect upon the reading achievement of both boys and girls.

During the school year, 1964-65, the experimental groups were matched with control groups typical in intelligence, home backgrounds, and ethnic origins. The research design was based on the divided-day structure for teaching reading, in which one-half of the children were given reading instruction between 9:00 and 10:00 in the morning, and the other half between 2:00 and 3:00 in the afternoon. The *Detroit Beginning Primary Test* was used in September to determine an IQ score for each child. The *Harsch and Soberg Survey Test of Primary Reading Development* was given in June to secure reading achievement scores for both the experimental and control groups. The schools in the research covered a broad range of socio-economic levels from middle-class to lower-class populations.

Basis for the Development of the Research Materials

In the summer of 1964, a workshop was held with teachers and administrators in the research in order to prepare specific instructional materials geared to the boys' learning characteristics, as noted from the previous research. In 1962, the teachers had taught sex-segregated classes in reading. Although the main effect of this research showed that boys did not learn to read better when separated from the girls, the teachers recognized basic areas of difference in the learning patterns of boys and girls.

First, the teachers emphatically pointed out that boys tended to be much more active physically than girls of the same age—wiggling, twisting, turning, shoving, pushing—whereas the girls were so "quiet, ladylike, and easy to handle." As one teacher put it, "It's so hard for an energetic six-year-old boy to keep himself occupied with reading a book." At the same time, the teachers noted that the boys had less verbal facility than the girls. The boys often spoke in incomplete and fragmentary sentences, having more difficulty in speaking clearly and easily.

Further, the teachers in the research stated that boys did not listen as intently and carefully as girls. Perhaps this lack contributed to the greater difficulty the boys experienced in making auditory discriminations and hearing common phonetic elements. The teachers found the attention span of the boys to average about two-thirds of that of the girls. Several teachers pointed out, however, that boys could pay attention for a long time if they were doing something active and dynamic.

In the area of goals, motivations, and interests, the boys in the study were generally less anxious than the girls to please the teacher, less motivated to develop good work habits, less desirous of assuming responsibility, and less self-motivated in learning to read, perhaps due to the role concept of the boy in the culture. The boys could be enthusiastic, curious, and tenacious in respect to something in which they were interested; but the teachers found it difficult to interest boys in subject matter that did not have the appear of the unusual and the dynamic. This contrasted with the ease with which the teachers of the all-girl groups reported that they could hold the interest of the girls in a variety of subjects.

The Use of Research Materials

With this knowledge of the observed learning patterns of boys, the teachers stressed four areas of learning theory in the use of the materials: readiness for reading, motivation and interest, practice and drill, and reinforcement.

Readiness for Reading. Because of the previously mentioned difficulties of boys in verbal facility, auditory discrimination, and listening skills, a structured program of pre-reading activities was developed. Flannel-board cut-outs and stories were used to develop specific speech sounds and to involve the children in taking parts of characters, in verbalizing details of stories, and in remembering sequences of events. A variety of puppets, from paper-bag to stick types, was used to free children from tension in oral language and to encourage them to verbalize stories and experiences.

"Phoneme Boxes" with objects representing the initial consonant sounds to be used in the readers were enjoyed by the children. The class manipulated the objects, saying the names of the objects, and learning the letter which corresponded to the initial sound. For example, the "D" box contained such objects as donkey, dish, doll, duck, dog, etc. Similar boxes were used with rhyming objects, *e.g.*, a little wooden house and a toy rubber mouse, a toy car and a wooden star, a metal bell and a sea shell. Later, the children brought pictures from home to represent the different sounds. Much emphasis was given to teaching the consonant letters and sounds that would be encountered in the pre-primers through rhymes, riddles, and stories.

Daily exercises were employed to teach the children to listen for different sounds and to discriminate among them, *e.g.*, transcriptions of the sounds of trains, trucks, airplanes, etc. Stories and poems were read to the children with specific instructions to listen for answers to questions. The classes were involved in many games and activities which encouraged them to observe, listen, and follow directions, such as "Simon Says" and "Do as I Do."

A highly effective teaching device was that of individual flannel boards and pocket charts which were similar to the large ones used by the teacher. Each child was involved in a listening situation in which he had to make a response with his own small flannel board or pocket chart and then could check with the teacher's answers.

Study prints, devised by an artist to introduce the characters from the readers and to parallel similar activities, enabled the teachers to create interest and understanding of the content of the pre-primers, while at the same time helping the children to develop the vocabulary of the readers in an auditory situation. The study prints, at the reading readiness stage, provided incentives for children to tell stories and to dictate their stories to the teacher. Later, the children used the study prints to write some of their own stories in a reading-through-writing approach.

Motivation and interest. It is generally agreed that interest plays a significant role in the motivation of human behavior. Real interest is active and dynamic, a force which motivates an individual to work, to think, and to learn. Specifically in the area of reading, the writer has made a study of boys' reading interests through interviews in depth with two hundred boys. The twelve categories most highly preferred (out of a total of fifty), in order of preference, were outdoor life, explorations and expeditions, sports and games, science fiction, sea adventure, tales of fantasy, historical fiction, humor, everyday life adventure of boys, outer space, mystery and detective stories, and war stories. The least-liked categories included stories about music or art, family and home life, plays, and poetry.

Of a total of twenty characteristics of reading interests, the seven best-liked, in order of preference, were unusual experiences, excitement, suspense, liveliness and action, surprise or unexpectedness, fantastic, fanciful, or weird elements, and funny incidents. The boys showed a consistent and almost identical pattern of least interest and liking for four characteristics or literary qualities: sadness, family love and closeness, cruelty and brutality, and familiar experiences.

Based on these interests, a selection was made of a series of readers about an atomic submarine called the Shark and the exciting adventures of a sailor named Jack, Bluebell the parrot, and a small boy, Eddy, who comes to visit the Shark. The unusual and exciting content of these readers, although not written specifically for teaching beginning reading, proved interesting to both boys and girls. (Many studies of reading interests have shown that girls tend to like what the boys like, in addition to their own special interests.)

Practice and drill. This was an area which challenged the most skilled teacher—that of varying the stimulus of the printed word so that even the most reluctant reader was motivated to look, listen, and want to learn. Effective use was made of a variety of colorful word drill activities, first used by the teacher in class with the boys and girls, and later used independently by the children. These aids and activities involved active participation on the part of the group and gave the boys many opportunities for movement and activity. These vocabulary activities included "traveling" games, "build-up-tear-down charts," "spinning" devices, "matching" cards, and "prediction" exercises.

Further variation in the practice of reading the stories was provided by a transcription for each story in the reading books, with appropriate follow-up practice material. These transcriptions were used in a "listening-post" situation, with individual earphones for each child, to give opportunity for rereading the stories in the reader as an independent activity.

Color slides were made as actual reproductions of pages in the reading texts. These slides were flashed on a screen by the teacher in a directed reading lesson and later used independently by the children, to give practice in the basic words in the readers and to vary the stimulus of the printed word.

Drill on the basic vocabulary of the readers was further varied by having the children write individual and original stories about their favorite characters. The children illustrated their stories, which were then made into a book to be read and re-read. Individual and group stories were dictated to the teacher who sometimes wrote them on a typewriter and at other times placed them in manuscript lettering on a large chart. In both instances, the children were encouraged to read the stories in their "free" time. The children also used the study prints as a basis for a new, imaginative story.

Reinforcement. Perhaps the greatest reinforcer in the research was the warm, friendly smile of the teacher, with a sincere word of praise and help. During the discussions at the research meetings, the teachers evidenced an acute awareness of the power to reinforce learning through affection, acceptance, and approval. Teachers tried to make the reading period a time of interest, excitement, and fun.

Daily follow-up work or practice material was given to the children to do independently after the directed reading lesson. This material emphasized the vocabulary and the reading skill the teacher had taught. When the work was corrected and the child could see that he had learned the "words," these daily materials acted as reinforcement for further learning. When a boy or girl could read a story on his own and enjoy it, he had achieved a high level of intrinsic reinforcement.

Use was also made of extrinsic reinforcement. Vocabulary tests were given regularly after two or three stories had been read. To show his achievement record in graphic form, each child painted a harbor, with a pier and, many times, with a picture of himself standing on the pier. After each test, he received a number of small submarines to paste on his harbor, according to the number of correct words. A sliding scale of the number of submarines was used so that every child could feel some success. A child who did not know the words on the test and failed to get even one submarine was given extra help and encouraged to take the words home to study so that he might take the test again at a later date and still get the coveted sub.

Results of the Research

Table 1 represents the means and standard deviations of the experimental control groups separated by sex. Means and standard deviations are computed for the sum of subtests 1, 2, and 3 and repeated for total reading test, *i.e.*, subtests one through six.

It can be noted that in all cases the mean of the experimental groups is higher than that of the comparable control groups. The differences for the first three subtests are more than 7 points for the

TABLE I

MEANS AND STANDARD DEVIATIONS OF EXPERIMENTAL AND CONTROL, AND BOYS AND GIRLS ON POST-TEST TOTAL AND SUBTESTS 1, 2 AND 3 OF THE H-S

		Subtests 1, 2, 3		Reading Total	
	N	Mean	σ	Mean	σ
Ex. Boys	39	37.67	5.20	58.79	12.18
Ex. Girls	47	36.34	6.46	54.45	13.67
Control Boys	38	30.37	6.76	41.47	12.04
Control Girls	48	30.73	7.81	42.02	12.27
Total	172	33.76	7.37	49.10	14.57

TABLE II.
SUM OF SUBTESTS 1, 2, 3

	Adjusted Sums of Squares	df	Adjusted Mean Square	F
Sex	2.66406	1	2.66406	.077
Experimental Control	1734.71289	1	1734.71289	50.259
Interaction	11.77734	1	11.77734	.340
Error	5777.04102	167	34.59306	

TABLE III.
TOTAL SCORE

	Adjusted Sums of Squares	df	Adjusted Mean Square	F
Sex	98.07813	1	98.07813	.744
Experimental Control	9266.98828	1	9266.98828	70.259
Interaction	1.35938	1	1.35938	.010
Error	22026.78125	167	131.89689	

boys and about 6 points for the girls. On the total test scores the experimental boys exceed the control boys by more than 17 points. This difference for the girls is better than 12 points.

Tables 2 and 3 show the tests for significance of these means by an analysis of co-variance. The co-varient in both cases is intelligence test scores. The only significant F is that between the experimental and control groups. In each case the mean score for the experimental group exceeds that on the control group significantly with the effect of intelligence partialed out. Besides the significant result of indicating the treatment was more successful in teaching reading to those children, an equally startling result is that the mean difference in reading scores for boys and girls was not significant. The mean for the experimental boys was slightly higher than that of the girls, although not significantly so.

This research has shown that materials and methods of instruction described in this study, and used with groups of children in the Los Angeles City Schools, enabled these children to read more effectively than those in the control groups. The teachers with the experimental groups spent a great deal of effort and energy in using the research materials. Lest any teacher become weary of putting forth his best effort to help children learn to read, let him remember the words of Emily Dickinson who wrote about a child in the slums of a large city who had learned to read well enough so that he loved books:

> *He ate and drank the precious words,*
> *His spirit grew robust;*
> *He knew no more that he was poor,*
> *Nor that his frame was dust.*
> *He danced along the dingy ways,*
> *And this bequest of wings*
> *Was but a book. What liberty*
> *A loosened spirit brings.*

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6. A Research-Oriented Program for Preparing Reading Specialists

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The Problem

THE DEVELOPMENT of effective graduate training programs in the area of reading instruction is currently receiving special consideration as the need for qualified teachers increases so dramatically.

There are many problems involved in

planning effective training programs. Three significant factors are: first, the rapidly expanding special reading programs in both elementary and secondary schools brought about by the availability of federal and state funds for financing such programs. This results in the necessity of hiring personnel not specifically trained for very specific types of reading instruction simply because there are not enough really qualified people to fill the positions. You have all had some experience with the panicky appeal for help from a teacher who finds herself suddenly in charge of a special reading program who has had no work in the area beyond a basic undergraduate language arts course or an undergraduate English methods course. A second significant factor is the tremendous interest in all aspects of the reading act by research people. The last five years alone have seen a significant increase in reported, published research studies concerning the nature of the reading act, diagnosis of reading disability, and special reading training procedures.

A third significant factor is the increasing interest of people in related disciplines in reading instruction. For example, graduate classes in reading at Indiana University have included students from the areas of Speech and Hearing, Guidance, Optometry, Educational Psychology, Psychometry, and School Psychology. In summary, the development of graduate training programs in reading instruction must consider students with widely diverse backgrounds of experience and include knowledge of the rapidly expanding research in this area of education.

Indiana University Programs

Basically the courses at Indiana University are developed in the areas of improved general reading instruction—critical review of research—diagnostic procedures in reading disability cases and corrective treatment for such cases. Every course beyond the introductory course requires practicum experience with pupils as well as textbook work, lectures, and discussions.

In the summer session program of 1965 several innovations were initiated. It is the purpose of this report to describe and evaluate these innovations.

Description of Program

Ninety-two children were enrolled in the corrective reading program for the Indiana University summer session of 1965. These children were referred by their classroom teachers with the cooperation of the parents because their development of reading skills were considered to be at least one year or more below their school grade placement and below their capacity for reading. Their ages ranged from 7½ years to 15 years.

Seven instructional groups of 12 to 15 pupils were formed on the basis of chronological age and school grade placement. The groups met for two consecutive hours daily Monday through Friday for the eight weeks of the summer session. A fully qualified master teacher was in charge of each group. The basic goal for the children involved in the program was to help each child improve his or her reading skills and to stimulate an interest in reading. The procedures involved careful and extensive diagnostic analysis of individual problems and the provision for appropriate training procedures based upon the diagnostic findings.

Innovations

The first innovation involved the nature of the practicum work. There were *two* levels offered to graduate students instead of the customary one level. The first level included the students enrolled in the diagnostic and treatment course and required each student to conduct corrective reading training with either one child or a small (no more than three) group of children.

The second level included students enrolled for practicum work only. These students were responsible for administration and interpretation of diagnostic reading tests for a small group (no more than three children). In addition to this, they worked with the interpretation of test results in the areas of intelligence—language development and perceptual functioning—administered by other examiners. A course of remedial instruction was planned for each child assigned to them. These student-supervisors then directed the work of the first level practicum students in carrying out appropriate training. They worked closely with the master teacher in all phases of their work. They assisted these practicing students in interpreting diagnostic data for each child and gave direct supervision for the training work.

Another innovation last summer was an experimental research project directed by Eugene Roach which used children enrolled in the summer program. The project involved the participation of the supervising practicum students in the following manner. Roach presented the purpose and design of the study to these students. They were then taught to administer the Purdue Perceptual-Motor Survey and to conduct training exercises in this area of development with the children in the experimental group.

Another innovation last summer was special counselling work with some of the parents of children in the program. Harry Robe, an Ed.D. candidate in school psychology, held group counselling sessions with five sets of parents one evening a week. These sessions were taped. The students did not attend these sessions, but were able to have seminar periods with Robe where the tapes were replayed and discussed. The parental attitudes and concepts of their children's problems were revealed. The progress in better insight and understanding of those problems which occurred as the sessions continued was dramatically presented.

Evaluation

The second level practicum students appreciated the opportunity to *practice supervision* under the guidance of the master teacher. This was especially true since so many of these students were to be assigned to positions of supervision.

The students enjoyed participating in Roach's research project. They were interested in this area of child development which most of them had not studied before. Also, they felt that they profited by actually being involved in research, instead of merely reading reports of studies.

The students were very appreciative of the opportunity to gain more insight concerning parents' attitudes and problems. They felt their own parent conferences would be more effective as the result of this experience.

Summary

The innovations made in Indiana University's graduate training program in reading were enthusiastically received by the students. This was shown by their eager participation in all the activities and by anonymous written evaluations turned in to the faculty at the end of the summer.

Certainly no claims are made that this was a perfect training program for reading specialists. There were many problems, all of which are being considered in planning this summer's program. However, the basic sequence of three courses in reading—(1) the general survey of reading instruction today, (2) a diagnosis and remediation of reading disability cases, and (3) practicum in supervision—has helped to meet the needs outlined at the beginning of this report. The innovations initiated this past summer contributed to the rapid but thorough training of teachers for special work in reading instruction. The students from other disciplines gained understanding of reading disabilities cases. The participation in the research project increased this ability to review research studies critically and stimulated personal research. The research project under consideration will be designed by the chairman of the school psychology program in cooperation with the staff of the Indiana University Pediatric Neurology Clinic. The project will be concerned with treatment for specific types of reading disability.

7. Evaluation of an Experimental Program of Perceptual-Motor Training with Slow Readers[1, 2]

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PERSISTENT, SOUND pedagogical techniques have been neither sufficient nor adequate in dealing with and reme-

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[1] The author wishes to express his appreciation to James Norton, Ph.D., Indiana University School of Medicine for help in statistical analysis of the data.

[2] "This research was supported in part by Public Health Research Grant FR 00162-02."

diating slow readers. Educators have long sought other approaches and applied various techniques to solve this most exquisite and complex problem in language development. The "how" and "why" of the acquisition of symbolic learning still eludes us, particularly when we try to apply remedial techniques.

This study was designed to measure the effects of perceptual-motor training on a group of slow readers. The training techniques used are modifications and amplifications of ideas suggested by Kephart *(2)*. A similar study by Rutherford *(6)*, with positive results, was reported last year using a narrower range of age groups than reported in this study. Rutherford's age-range was sixty-two to eighty months. The age-range in the present study is ninety-five months to one hundred sixty months. Other researchers, Simpson *(7)*, and Ross *(5)*, have reported studies which also indicate improved readiness for reading following a vigorous perceptual-motor training period. The populations in these studies also involved children at or below the third grade level. It was decided to attempt perceptual-motor training with children who were somewhat older than children previously studied, and to measure the effect on the gains made in reading achievement following such training. It is not the purpose of this study to discover the value of perceptual-motor training, *per se*, but to explore certain methodological problems. The value of perceptual-motor training has already been demonstrated.

The entire experiment was carried out during an eight week summer remedial reading program at Indiana University, Bloomington, Indiana. All children were assigned to remedial reading groups on the basis of age. Since the reading program involved many teachers and many techniques, these variables were considered to be randomly distributed in the population of slow readers.

Eighty children were divided into two equal groups. One was designated the experimental group and the other the control group. Rigorous matching procedures were applied in the assignment of the subjects to the experimental and control groups. Each child was matched initially according to sex, age, grade placement, reading level, and the Peabody Picture Vocabulary Intelligence Quotient. Table I shows Means, Variances, and F ratios for certain initial variables.

During the experiment other data were collected to assure comparability of the groups. These variables included the Raven Progressive Matrices, the Wechsler Intelligence Scale for Children, the Average Rating Score on the Purdue Perceptual-Motor Survey *(4)*, Father's education, and Mother's education. In Table II are presented the Means, Variances, and F ratios for the variables collected during the experiment.

TABLE I

MEANS, VARIANCES AND F-RATIOS ON INITIAL VARIABLES

	Experimental Group			Control Group				
	N	Mean	Variance	N	Mean	Variance	F-Ratio	LS
Age in Months	40	125.30	336.78	40	125.37	350.70	1.0413	NS**
Oral Reading Level*	40	3.300	109.79	39	3.512	177.22	1.6011	
Peabody Picture Voc. IQ	40	108.15	182.59	40	105.48	167.64	1.0892	

*Gates-McKillop Reading Diagnostic Test oral reading level.

**All F-Ratios fall below level of significance at p.05 level.

The experimental group was divided into small groups (between 6-8 children in each group) and each group received 30 minutes of intensive perceptual-motor training each day for eight weeks under the direction and supervision of the author. The training period was divided into six minute periods devoted to various training activities. The six minute periods consisted of: (1) balance and laterality activities, (2) rhythmic activities, (3) neuromuscular differentiation and body image activities, (4) gross perceptual-motor matching activities, and (5) chalkboard activities involving finer perceptual-motor tasks. All activities were

TABLE II

COMPARISON OF MEANS, VARIABLES AND F-RATIOS OF INTELLIGENCE, PERCEPTUAL-MOTOR, AND SOCIOLOGICAL VARIABLES BETWEEN THE EXPERIMENTAL AND CONTROL GROUPS

	Experimental			Control			F	
Variable	N	Mean	Variance	N	Mean	Variance	Ratios	LS
Raven's Matrices (Raw Score)	39	26.48	32.99	40	26.52	30.31	1.09	
Perceptual Motor Survey (rating average)	37	2.42	2.72	37	2.46	2.56	1.06	
WISC Full Scale IQ	39	97.90	110.36	38	96.82	208.75	1.89	*
Verbal IQ	39	96.61	134.19	38	96.42	229.44	1.71	
Performance IQ	39	99.31	145.96	38	97.92	202.94	1.39	
Information	39	9.49	5.94	38	8.84	6.03	1.04	
Comprehension	38	9.34	13.47	38	10.03	18.24	1.35	
Arithmetic	39	7.74	7.83	38	8.47	13.18	1.68	
Similarities	39	10.92	9.75	37	10.84	10.75	1.10	
Vocabulary	38	9.87	8.01	38	9.84	12.35	1.54	
Picture Comp.	39	10.74	10.14	38	10.18	7.78	1.30	
Picture Arr.	39	10.95	8.21	38	10.32	8.11	1.01	
Block Design	38	9.89	6.96	38	10.26	9.55	1.37	
Object Assembly	38	10.08	9.26	37	10.16	9.25	1.00	
Coding	38	8.39	8.89	38	7.79	8.93	1.00	
Mother's Educ. (in yrs.)	37	12.57	4.25	39	12.67	4.28	1.01	
Father's Educ. (in yrs.)	35	13.66	12.53	39	13.15	6.29	1.99	*

*Significantly different at the p.05 level. p.05 level=1.8817.

accomplished in a modern grade-school gymnasium with the exception of chalkboard activities. This activity was carried out in the classroom. The entire training program was presented as a "controlled recess period."

The control group was given a 30 minute recess period. They received only minimal playground supervision from the person assigned to playground duty. However, many of the same types of play equipment were available to them to use as they wished, *i.e.,* a walking board, jump ropes, swings, etc.

Each students was given the Oral Reading portion of the Gates-McKillop Reading Diagnostic Test, Form I *(1)* at the beginning of the remedial reading program. This constituted the criterion measure of initial reading achievement level for each student in the study.

At the end of eight weeks the Oral Reading portion of the Gates-McKillop, Form II, was administered. This is referred to in this study as the immediate post-training criterion score.

It was decided before training that the effects might not be demonstrated as rapidly as the eight week period would allow. In order to obtain an adequate post-training score, the Oral Reading portion of the Gates-McKillop, Form I, was administered again six months following perceptual-motor training.

This test administration procedure allowed the collection of three criterion measures. One measure would be the gain in reading level between initial score on the Gates-McKillop Form I and the score earned at the end of the eight weeks training program on Form II. The second measure would be the gain in reading achievement, if any, between the initial level on Gates-McKillop Form I and the level of reading achievement level earned at six months following training on the Gates-McKillop Form I. The third criterion measure possible would be the difference in reading levels between the eight week testing with Form II of Gates-McKillop and the six month testing using Form I of the Gates-McKillop. The latter measure was not used further in the analysis of the data.

After a careful analysis it was decided to use the difference between reading achievement level on the initial test and the six month test as the main criterion measure to determine the effectiveness of perceptual-motor training. This was done for two reasons. First, both of these scores resulted from the same forms of the Gates-McKillop Reading Diagnostic Test. Thus, no assumption of Form I and Form II comparability needed to be made. And second, it would be predicted that perceptual-motor gains made during training, if important to reading skills, would best be demonstrated after six months.

Results

Table III presents the paired t-ratios for the two criterion measures immediate gain and gain at 6 months between the experimental and control groups. It is readily seen that the effects of perceptual-motor training on reading achievement, when given in groups of six to eight children, fail to reach a level of statistical significance.

F-ratios between the control group and experimental group are all statistically non-significant with the exception of Full Scale IQ on the Wechsler Intelligence Scale for Children and Father's education. The F-ratios of all subtests included in the Wechsler Intelligence Scale for Children Verbal and Performance Scales are statistically non-significant at the p.05 level.

TABLE III

PAIRED T-RATIOS OF GAIN SCORES ON THE GATES-MCKILLOP READING DIAGNOSTIC TEST IMMEDIATELY FOLLOWING TRAINING AND AFTER SIX MONTHS BETWEEN THE EXPERIMENTAL AND CONTROL GROUPS

Immediate Gain					Six-Month Gain Scores				
Pair N	Ed	$\bar{d}$	S^2d	t.obs	Pair N	Ed	$\bar{d}$	S^2d	t.obs
38	4.5	.1154	.9034	.754	25	1.3	.052	.144	.361

Discussion

The critical factors in this study should now be clearly stated. One factor involved the rigorous matching of two groups. It is inescapably clear, as the data are reviewed, that the two groups are well matched. (See Tables I and II). Second, it is the author's opinion that perceptual-motor behavior cannot be modified in groups of six to eight children at this age level, but must be done on an individual basis.

In pursuing this aspect of individual versus group perceptual-motor training, the author matched seven children who were in the experimental group with their control group counterpart. These children from the experimental group had previously received perceptual-motor training for a brief period before on an individual basis, and continued to receive this training during the first semester of the 1965-1966 school term. Table IV indicates very dramatic differences in gain scores immediately following training and at six months between this group who received continued perceptual-motor training on an individual basis and those who did not. These gain scores do reach statistical significance. In addition to making significant gains in reading achievement, the subjects who receved continued individual perceptual-motor training also made significant gains in their ratings on the Purdue Perceptual-Motor Survey.

The factor of age is felt to be a critical variable in this study. It may be that in order for group perceptual-motor training to be effective it must be given earlier than ninety-five months of age. Earlier

TABLE IV

PAIRED T-RATIOS BETWEEN GAIN SCORES ON THE GATES-MCKILLOP READING DIAGNOSTIC TEST OF INDIVIDUALS RECEIVING INDIVIDUAL VS. GROUP PERCEPTUAL-MOTOR TRAINING AT BOTH IMMEDIATE AND SIX-MONTH PERIODS

Immediate Gain					Six-Month Gain				
Pair N	Ed	$\bar{d}$	S^2d	t.obs	Pair N	Ed	$\bar{d}$	S^2d	t.obs
7	6.4	.9143	.365	2.505*	5	2.7	.540	.166	3.253*

*Both values significant at the p.05 level.

studies which report positive results following perceptual-motor training seem to support this view.

Another critical factor was the loss of cases in the experimental group at the time of six month testing. More elaborate statistical analyses which we are presently undertaking may overcome the problems of missing data.

Conclusions

This study indicates that perceptual-motor training is not effective in raising achievement levels in reading when training is given in small groups of six to eight children. There also appears to be an age variable, since studies on younger children have produced significant positive results. The lower age limit of ninety-five months, as was the case in our study, may be too late for efficient modification of perceptual-motor behavior on a group basis.

Implications for Further Research

We are now completing a more elaborate analysis of the data and doing a step-wise multiple regression analysis to pick out predictors which are correlated with success in the remedial reading program under study. When these predictor variables are selected, more elaborate analyses between the control and experimental group differences can be accomplished by the use of the analysis of covariance. A more detailed study is now being prepared to analyze and report on all of the implications of perceptual-motor behavior, perceptual-motor training, intelligence, and sociological variables.

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8. Listening, Reading, and Qualitative Levels of Thinking in Problem Solving

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Problem

THE IMPORTANCE of investigating both aspects of language reception—listening and reading—has been indicated by past research (*3, 4, 5, 6* and *7*).

Purpose of the Study

The central purpose of this study was to investigate the interrelationships of test variables with regard to presentation by listening and presentation by reading for an experimental measure constructed by the present investigator entitled "Tell the Problem and Make a Plan."

Using this measure, a study was made of relationships between the following five variables: (1) scores derived from *listening* to the material, henceforth referred to as "problem-listening," (2) scores derived from *reading* the material, henceforth referred to as "problem-reading," (3) subscores from the first two variables concerning qualitative levels of thinking—abstract, functional and concrete, (4) scores from a measure of general reading ability—*Sequential Tests of Educational Progress,* form B, henceforth referred to as *STEP Reading,* and (5) scores from a measure of general scholastic aptitude—*School and College*

Ability Tests, form B, henceforth referred to as *SCAT*.

Definitions of Qualitative Levels

In order to define the qualitative levels of concrete, functional, and abstract thinking used in the answer choices of the experimental test, it may facilitate understanding to consider the "forest-trees" analogy. The error category is also defined. Problem solving is defined operationally in the section "Experimental test content and design."

Concrete. A child may be said to think on a concrete level if his verbalization, or choice of verbalization, appears to be concerned with the isolated "tree," or some sensory aspect or a particular, almost irrelevant detail. Aspects of shape, color, motion, time, size, weight, and location may represent the figure in the "figure-ground" aspects of an object, a situation, or a problem. Such concrete thinking is not to be disparaged; it serves as a useful and vital basis for more abstract modes of thinking.

Functional. A child may be said to think on a functional level if his verbalization may be placed midway and further along a hypothetical concrete-abstract continuum toward abstract verbalization. This level is characterized by a preoccupation by the child with what he would do or how he would use an object or a situation *(10)*. It might be said that the child is not so much occupied with the isolated "tree" as with "climbing the trees toward the top."

Abstract. A child may be said to think on an abstract level if his verbalization illustrates a broad, accurate, view of the "forest," not just the isolated "tree." He may be able to view an object, a situation or a problem, not in terms of some isolated particular or personal characteristic, instance, or action, but in terms of a broad class, type, or relationship.

Error. The alternatives for the multiple choice answers for the experimental test were constructed to represent completely erroneous or completely irrelevant data, a mistaken idea, or information.

Method

Measurement: Experimental test content and design. For this investigation, a 48-item measure of qualitative levels of thinking concerning problem-stories was constructed and evaluated *(9)*. The coefficient for test-retest reliability for this measure was .78 (N = 86). The procedure of dividing and using this experimental test for the purposes of this study concerning reading and listening is described in the later section titled "Procedures."

The content and design of the test is as follows. The problem in each of the four unfinished stories within the test dealt with social relationships involved in integration of the individual into a peer group, coping with change, and the rift between the young and the old.

Each of the four stories was followed by 12 multiple choice questions with four alternatives each in random order: abstract, functional, concrete, and error. The 12 questions following each story dealt with: (1) main problem, (2) subproblem, (3) type of problem, (4) definition of terms in the problem, and (5) hypotheses for solving the problem, etc.

The objective answer choices for the experimental test were derived from actual free responses of children to the questions. From use of this coded material, the four alternative answers for each question were constructed by the experimenter to fit the three qualitative levels (abstract, functional, and concrete) and the error type of response.

Although use of the multiple choice format for the test may be questionable, extreme care was exercised in evaluating the constructed answer choices by the use of judges and by care in controlling vocabulary *(9)*.

Scoring. The experimental tests were scored in the following way. For the subscores, first, the number of abstract answer choices that the pupil had marked on his IBM sheet was counted. This talley gave the abstract score. Then the number of functional answer choices was counted, giving the functional score. Next, the number of error choices marked was also noted.

A total score for the experimental tests of listening and of reading was derived in the following way according to the method devised by Russell and Saadah *(12)*. Choices of abstract, functional, concrete, and error items were arbitrarily rated 3, 2, 1, and 0, respectively.

Other measurement. In addition, two standardized measures—one of reading ability, *STEP*, one of scholastic aptitude, *SCAT*, were administered.

Sample. A sample of four sixth-grade classes in Goleta, California, was drawn from a population of 578 pupils unused in previously related studies. In the Goleta Union School District pupils are assigned randomly to classes at the beginning of the school year. This district has been classified as having a typical socio-economic distribution for suburban schools *(2)*. The present sample of pupils ranked within the 54th to 73rd percentile band on *STEP Reading* and in the 70th to 86th percentile band on *SCAT*.

Procedures

Each of the four unfinished problem-stories with the 12 multiple choice questions for each story was presented in rotation to the four randomly selected classes. In order to derive measures of listening and reading, half of the four test stories randomly assigned were listened to and half were read by the pupils. The listening test thus derived, referred to henceforth as "problem-listening," was read by the examiner. The reading test thus derived, referred to henceforth as "problem-reading," was read by the pupils themselves.

Findings

Emerging from the 18 correlations significant at the .01 level and the 19 correlations significant at the .05 level, the following relationships were of special interest (N=86).

1. *Listening and Reading While Problem Solving.* The correlation between the total scores for the problem-listening test and the total scores for the problem-reading test was .39 (.01 level of significance). The magnitude of this positive coefficient was interpreted tentatively as indicating some association with regard to the problem-solving process evoked by the design and the content of these two tests. But the magnitude of the coefficient was also interpreted tentatively as showing two separate or differing (though moderately related) modalities of reception employed while reacting to the material.

Practically applied, knowledge of the size of the coefficient might indicate that teachers would receive different information concerning their class by looking at the results from both measures of problem-solving ability—the listening version and the reading version. Moreover, in making a between-class comparison, care would need to be exercised as to the mode of presentation of an evaluation instrument containing qualitative levels of problem solving.

2. *Reading While Problem Solving and STEP Reading.* Furthermore, as anticipated, the correlation coefficient between total scores from the two reading measures—problem reading and *STEP Reading*—was .59, higher than between problem-reading and problem-listening scores just reported.

To interpret, scores on measures of reading appeared to be more highly correlated than were scores on identically designed and highly similar measures of problem solving when two differing modes of reception were used. Even when one of the reading measures focused solely on a problem-solving approach and when the other reading measure represented a generalized sampling of reading skills, they were more highly correlated than the problem-reading, problem-listening tests.

3. *Listening While Problem Solving and STEP Reading.* Moreover, the coefficient of correlation between total scores derived from problem-listening and scores from *STEP Reading* was .29. As might be expected, the magnitude of this relationship between scores from problem-listening and scores from *STEP Reading* was lower than the relationship between scores from problem-reading and *STEP Reading* (which was .59) and lower than between problem-listening and problem-reading (.30).

To summarize the first three findings, it appears to be confirmed that the reading measures were more highly associated than were the listening and reading measures.

4. *Qualitative Subscores, Listening, Reading and Scholastic Aptitude.* From examining the magnitude of correlations

between the qualitative subscores: (1) it was intended to further dimensionalize the variables of problem-listening and problem-reading; (2) it was intended to ascertain the relationship of these variables to measures of general reading ability and general scholastic aptitude.

Interrelationships between the subscores. The highest positive correlation, .31 (.01 level of significance), interpreted as the highest association between the two tests, lay within the concrete quality, followed by the abstract quality, .23 (.05 level of significance). Although positive, neither of these coefficients illustrated a high relationship. Little or no relationship appeared to obtain between the functional qualities across the two measures of problem-reading and problem-listening.

By way of tentative explanation, the relatively small number of pupils who operate typically at concrete levels in the sixth grade may tend to operate with regard to these particular units irrespective of the mode of presentation. And perhaps the pupils who tend to be able to operate with broader symbolic qualities of thinking project their selection of this abstract quality and this facilitated performance across these measures. But, perhaps the intermediate developmental stage in qualitative thinking, thought to be the functional, is more in a process of flux and more likely to evidence less relationship across tasks and modes of presentation *(9)*.

The highest negative relationship among the qualitative levels was between the concrete problem-listening scores and the abstract problem-reading scores, −.33 (.01 level). It might be said, for example, that a child in sixth grade who does select the abstract qualitative level while *reading* problem material does not necessarily tend to select the *concrete* qualitative level while listening to problem material. Rather, this child would tend to choose abstract choices whether reading the problem material or listening to it.

The positive relationship between the standardized tests, *STEP* and *SCAT*, and the experimental measures is dependent mainly upon the abstract quality. Moreover, the abstract relationship is somewhat stronger for the *reading* mode (.41, .54) than for the *listening* mode (.19, .34).

5. *Factor Analytic Structure.* A factor analysis including the experimental test variables must be viewed with caution because of the experimental dependence among the qualitative levels associated with ipsative properties of measurement. The general findings, however, which are consistent with the correlational results, suggested some possible noteworthy relationships. Use was made of the FARO program at the computing center, University of California, Berkeley.

The factor analysis was derived from the intercorrelation matrix including cognitive variables for (1) problem solving through listening with three levels (abstract, functional and concrete), and (2) problem solving through reading on three levels, and (3) variables of *STEP Reading*, and (4) *SCAT*. The analysis yielded four correlation clusters suggesting four factors.

These verbal factors were labeled tentatively: (1) Abstract Reading Ability, (2) Concrete Listening Quality, (3) Functional Listening Quality, and (4) Functional Reading Quality.

The first factor, Abstract Reading Ability, was highly loaded (.74 and above) on the variables from *STEP Reading*, *SCAT* and the variable of abstract quality from problem-reading. As was expected, the abstract quality from problem-listening, however, was not highly loaded on this factor (.17). That these reading variables did cluster together may be partially explained by the symbolic thinking with respect to graphic symbols needed by pupils who do well on these tests.

The three remaining factors were highly loaded only on the variable for which they were named.

The major interest of the factors is, perhaps: (1) the consistent separation of the reading variables from the listening variables, (2) the separation of the qualitative levels across the two experimental measures, and (3) the association between the variables of abstract quality, reading and scholastic aptitude, especially because of consistency with an earlier analysis.

Supporting evidence from another

study. The finding of one factor with high positive loadings from variables related to graphic symbolism including the variable of abstract quality was consistent with findings from a different sample of sixth-grade pupils *(9)*. The earlier analysis, however, included the problem-solving test of 48 items with a combination of modes of presentation. This previous study also included qualitative subscores from other experimental tests.

Conclusion

The relatively small relationship between the listening and reading factors and the qualitative levels may lend some support to the theoretical concept of a constellation of listening abilities, as well as reading abilities, related to qualitative levels of thinking as measurable. Partial support for this interpretation of separate reading and listening abilities can be derived from factor analytic studies by Caffrey *(1)*, Singer *(13)*, and Spearritt *(14)*.

Spurred by findings from the present investigation, future study might include an expanded number of test items, larger samples, additional measures, the use of other grade levels, a training program for improvement of problem-solving abilities, and a special emphasis on the development of listening skill.

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9. An Occupational Study of Reading Specialists in Elementary Schools

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AT TIMES it is desirable to look at the way a professional field is developing, especially such a relatively new field as the elementary school reading specialist. The conclusions from this study were based upon the questionnaire responses of 711 elementary school reading specialists in 15 states, in school systems ranging from 300 to 25,000 in school population. Seven per cent of the population sampled were males ranging in age from 22 to over 60 with a median age of about 37.1, and 93 per cent were females ranging in age from 22 to over 60 with a median age of about 46.9.

In discussing the date in this study, it is well to keep in mind that the specialists were divided into three categories:

169 consultants—those who spend the majority of their time working with staff in the improvement of the total reading program; 492 teachers—who spend the majority of their time teaching children with reading difficulties; and 50 persons with dual jobs—who divide their time between teaching remedial reading and handling another major speciality. The term "reading specialist" will be used when referring to all three types. The nomenclature of this job seems hopelessly confused, with duties and responsibilities having little to do with title. The most common title for those who worked with teachers was consultant, while remedial reading teacher was the most common title for those who teach children.

One of the purposes of this study was to differentiate between the male and female reading specialist. There were no significant job differences, although there were some significant differences in other areas of comparison. The women outnumbered the men 13 to1. A recent publication of the National Education Association reports that 11.9 per cent of the elementary classroom teachers are men, and 85.5 per cent are women. Only 7 per cent of those participating in this study were men, while 93 per cent were women. According to these figures, women seem to dominate both classroom teaching and remedial reading in the elementary school. The question has been raised of whether a preponderance of women teachers at the elementary level is psychologically sound for children. It might well be asked if it would not be better to have more men in remedial work, since the incidence of boys to girls is greater in remedial reading classes in the classroom—as high as 90 per cent.

The women are an older group. Thirty-three per cent of the women are 51-60 years of age, compared to 7 per cent of the men specialists. Thus, almost one-third of the women specialists had their original teacher training 25-40 years ago. Have these older reading specialists received sufficient training in subsequent years to keep abreast of new developments in reading? Even though many school systems have periodic study requirements, the *National Research Bulletin of* October, 1965 says that classroom teachers are not growing professionally. The Association's research shows that 15.1 per cent of the elementary school teachers—most of them in the older group—do not even have a bachelor's degree. This study of reading specialists happily presents a more encouraging picture. Only 3 per cent of the women teachers had no degree, and two-thirds of those were working toward completing the requirements. All men teachers had at least one degree. Another aspect of the age problem is that over 6 per cent of the women were over 60 years of age and 33 per cent will retire within 5-14 years. Only 2 per cent of the men were over 60 years of age, with only 7 per cent in the 51-60 category. To replace so many of these specialists will require large numbers of students entering elementary education and strong efforts at recruitment within school districts by school administrators if the supply is to keep up with the demand for well-trained, experienced persons.

Preparation and Experience

Over 76 per cent of the consultants held both bachelor's and master's degrees, while 23 per cent held only bachelor's degrees. Fourteen per cent were working toward master's degrees, and 14 per cent of those holding master's degrees report working on the doctorate degree. Those working on the doctorate were about equally divided between Ph.D. and Ed.D. degrees. Thirty-three per cent of the male teachers held bachelor's degrees while over 60 per cent held both bachelor's and master's degrees. Fifty-one per cent of the female teachers held bachelor's degrees, while 44 per cent held both bachelor and master degrees. Eleven female teachers were working on Ph.D's.

Most reading specialists had more work in psychology and in their speciality, the language arts and reading lecture courses than in any other areas. More than one-fifth, however, had taken no work in reading practicum. A good supervised practice teaching experience with children having a variety of disabilities to diagnose and treat is of major importance in the training of the remedial specialist.

A much higher proportion of male

consultants reached their positions with fewer years of classroom experience than women, and at an earlier age. In fact, seven per cent of the male consultants reported no classroom experience at all. Thirty-six per cent of the consultants could be considered tyros with only one to two years of experience at the job.

Twenty-seven per cent of the reading teachers had six years or less classroom teaching experience before entering the specialized field, while ten report no classroom experience prior to their work as remedial reading teachers. Yet all were adamant in feeling that classroom teaching experience was necessary to the successful performance of their jobs!

Reading specialists were asked to comment on the areas in which they would have liked more intensive work. It was evident from their responses that reading specialists were not satisfied with either the intensity or scope of their educational preparation. They called for more "depth" in the teaching of reading courses and said that they were inadequate in the interpretation of test results. If specialists are inadequate here, it means that they lack the ability to diagnose children's difficulties in reading—a first step in identifying the retarded in reading and providing the proper treatment. The importance of supervised teaching in the minds of the specialists was evident. Even consultants requested more work in this area of preparation.

The Programs as They Function

The elementary school reading consultants work with teachers of K-8, but teachers who teach children largely confine their teaching to grades 2-5. The inclusion of grade 2 in so many programs seems to be a trend to bring the program to the lower grades and may have been influenced by some research that indicates that the "staying power" of extra help pays off more in the lower grades. Most elementary reading specialists say that they are members of a reading department. If this is true, this too is a new trend in the elementary school organization.

Reading consultants say they are responsible for three large areas of work: diagnosis, instruction, and consultation and counseling. It will be noted that there is a much smaller proportion of consultants than teachers (23.6 per cent as contrasted with 76.2). This occurs in spite of much advice from reading experts about the need to improve the total reading program through in-service activities and through the education of classroom teachers in diagnosis and treatment.

Remedial reading teachers say they teach reading to individuals, small groups, and sometimes to homerooms of remedial readers. They reach groups ranging from 10-15 to 46-51 per year. They also indicate that they hold conferences with parents and classroom teachers to coordinate the program for the child. They "try" to do many of the things consultants do "if they can find the time," which means that they see the importance of doing them. A few are limited by administrative regulations in the help given to classroom teachers.

Entry and Licensure

Most of the consultants and teachers entered their positions by being advanced from classroom teacher to reading teacher to consultant. This is a sound progression of experience. Most were invited into the position by their own administrators, but some obtained their positions through direct application. Very few obtained their jobs through college placement offices or private agencies. In states having reading certificates only 8 consultants and 23 remedial reading teachers report they held the special reading certificate.

Economic Information and Satisfactions

The reading specialist is a well paying position. Salaries for consultants range from $5,000-6,999 in the smaller districts to over $10,000 in the larger urban areas; for teachers in smaller districts from $3,000-4,999 to $10,000 in larger populated districts; for dual jobs from $3,000 to $9,999. Some report supplementing their base salary with related work in tutoring and college teaching.

It is significant that over three-fourths of the specialists said they were enthusiastic about their jobs, while only five expressed indifference or dislike for their positions. With 99 per cent satisfied with their work, the evidence seems clear—reading specialists like their jobs. The chief satisfactions seem to be related to the nature of the work: observation of pupil progress, helping pupil's general adjustment; feeling of doing good; ability to work with individuals; appreciation from pupils, parents, teachers and administrators; freedom from the details with which classroom teachers must contend. Most of the specialists gain their greatest satisfaction from the pupils themselves. A few indicate pleasure in working with professional colleagues and in the opportunity to serve the total school community.

The dissatisfactions expressed were much more specific than the satisfactions: lack of structure and general acceptance of the program; the negative attitudes of teachers, parents, administrators and children; disgust with their own lack of training; lack of job definition; lack of time, lack of personnel, and lack of materials; loss of time traveling from building to building and having no place they could call their own. Only a few complained of extra duties.

Conclusions

Although many readers may be interested primarily in the occupational information presented earlier, they may wish to consider some conclusions and recommendations reached from the data collected and presented below.

Dissatisfactions are a concern of all. There are many ways of attacking them, but responsibilities for removing some of the major ones found in this study seem to lie in three areas: in the schools, in the universities and colleges, and in the specialists themselves.

Schools. One of the major dissatisfactions expressed by the reading specialists was the negative attitude or indifference on the part of the staff to their program. This is a program for the school system, for the staff must be taken along in any change in program. They must be considered in any change in the total concept of reading improvement. Then, they will be prepared for the activities of the reading specialists. Second, the administration will need to understand the need for a less structured program and for the variety of activities the specialists must undertake, giving active support and leadership to the program of faculty education. Remedial reading teachers expressed the danger inherent in and practiced by some systems: classroom teachers may consider the remedial reading program a substitute for the developmental program. It is wise to stress that remedial instruction cannot be accomplished by remedial reading classes alone.

There is need for job definition and training requirements for the position. State certification may provide a partial solution, but steps should also be taken by individual schools to set up requirements. Administrators need to stop "promotion" and "demotion" of staff members for these positions. Administrators need help in defining the job and the specialists need the confidence and security of adequate training and job structure.

Universities and Colleges. The training centers bear responsibility for distributing direct communications on reading conferences, on requirements for reading specialist, and bulletins concerned with reading to administrators within the university's sphere of influence. Courses required in the administration of reading programs would assist the administrator in keeping up with the latest research in reading. There is need for more intensive training in the area of specialization for the reading specialist. Specialists beg for depth in teaching of their specialties, more work in the interpretation of tests, and more opportunities for reading practicum in laboratory or clinic.

Reading Specialist. The reading specialist must be willing to make clear to the staff what his purposes and goals are, what he is doing and why, and most importantly how he intends to involve his colleagues in reading activities. He needs to encourage action research. One of the weakest areas reported in this study was the amount of evaluation done and the amount of research carried on.

Recommendations

1. Since this study is confined to 15 states, it would be interesting to have intensive studies made in other areas

throughout the United States, with comparison of data.

2. Basal readers and accompanying workbooks remain the mainstay of the remedial teacher. There is a great need for a study which would determine which materials secure the best results for particular reading disabilities; *e.g.*, Frostig's educational materials are made to develop certain skills in order to strengthen perceptual abilities. It would be helpful to know what factors determine success with these and other materials.

3. An investigation needs to be carried on to produce recommendations for the most fruitful types of administrative organization in fostering improvement of reading in school systems of various kinds. Some administrative plans for reading instruction seem to consider reading separate from the characteristics of children which cause them to want to learn to read, and learn how to read better.

4. There should be (for entering specialists) a listing of schools and other agencies offering courses in certain types of reading programs. Such a listing might indicate the kind of training available, description of individual courses, degrees granted, supervised teaching available, and other details of interest to recruits, both administrators and teachers. Supervisors and administrators who set up in-service programs would also be helped by this to have a better understanding of the kinds of assistance to give in their own instructional programs.

5. Since many of the reading specialists seem concerned with negative feelings and lack of communication on the part of some classroom teachers and administrators and see this as a major deterrent to the success of the program, it would be interesting to ask teachers about their feelings, their causes and effects.

6. A study of disadvantaged children to show what effect different programs have upon their progress is needed, *e.g.*, a study providing preschool experiences which other children typically have before coming to school.

In conclusion, the most successful remedial programs will be those which contribute most to the knowledge and insight of the entire staff in dealing with reading problems. The crucial test of reading improvement is in the daily improvement of all pupils, not in the specialist working with a few "remedial cases." Broad as well as intensive training will be needed for these persons responsible for developing insight and knowledge on the part of administrators and classroom teachers. IRA has the opportunity to assume the leadership in setting up standards and titles and making them consistent for several levels of competence, by helping training institutions provide the necessary training for certification of these positions, and by persuading schools to establish the leadership and structure needed for maximum achievement.

10. Let's Not Read So Soon! (Even Those Who Can)

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THE TEACHING of beginning reading is on a track system! One track. As the "new insight" choo-choo goes speeding along it is getting to be the only track "do-it-sooner, do-it-sooner, do-it-sooner" system, leaving all others either by the wayside or far behind damned as "lock-stop" or "underestimators - of - young-minds." The hottest fireman of them all, Jerome Bruner, began shoveling on the coal with "our schools may be wasting precious years by postponing the teaching of many important subjects" *(1)*. And how about this for power to run a run-away train by: "delay in teaching reading to *some* children wastes not only precious time but also the precious spark of enthusiasm that teachers are always trying to light" *(2)*. An examination of the literature and the trend in the changes instituted in beginning reading programs in the past five years leave no doubt that today it is considered "good" to look for ways to bring youngsters to reading sooner rather than later.

Are We Reading Too Soon?

This paper is not going to enter the current dialogue in opposing this trend by asking the usual questions *Why?, To*

What advantage?, For whom?. What about those who are "normal" and can't learn earlier? Can we keep from them the message that they are already failures at five and six. (Would you believe four, in the "new" nursery school?) Moffitt asks these and many other pertinent questions elsewhere *(3)*.

We have other concerns. We seriously question whether teaching children to read and to use reading before *second* or *third grade* is advantageous to the developmental nature of reading. The utilization of reading as a form of communication before it should be used may potentially have a long lasting negative effect upon the child's growth in reading. These concerns result from an examination of the apparent reasons that young ones have for reading and also a serious unbiased look at what six or seven year olds can derive from reading.

Why Read?

Why does a youngster in primary school read? To enjoy story line? Maybe, but he can usually *hear* stories that offer much more in the way of descriptive vocabulary and complexity of plot. An adult, teacher or parent, is not controlled by the problem of word analysis and also can give immediate help with what might be difficult concepts. (And, at this age, the contact with an adult in a non-evaluative atmosphere is always fun and sort of confidence producing.) Maybe the early grader reads because the books are pretty. Of course, but it is not the words in print that are pretty—it is the whole book itself—and the person reading out loud can show the pictures and discuss them when appropriate. Maybe a youngster wants to know about the world around him. He wants to use reading to extend himself and learn. But why a book? He can learn more about *anything* by hearing someone with more knowledge than himself (a teacher) tell about it. He can see a film that he can easily understand which tells him so very much more and usually in a more inviting way. He can "do" by planting or building or comparing actual phenomena, rather than guess what the world is about through someone else's words. Reading would give relatively little. In short, reading, for a youngster in primary school, is the *least* effective medium of all the communication media that can be used for learning about things or for enjoying stories pleasing to the thoughts and imagination.

Of all the communicative skills the primary child develops, reading is the least mature. It is merely in its beginning stage. A young reader cannot deal with material beyond the level at which he can analyze the sound of words. He can think and be made to think at a much higher level if reading is not the stimulus. The main thing a primary youngster seems to be missing when he reads instead of hearing and seeing is practice in sounding out words, even if the words in their book setting almost always have to be at levels lower than words he can hear without help.

How can you learn more about a frog? By reading about him in a second or third level book or by seeing a film strip or a film? Better still, have a frog before you and compare him to the anatomical chart you have right next to the frog. Or why not compare the chart to the actual discoveries you make when you dissect a frog? Yes, learning can be really interesting!

Reading More and Enjoying It Less?

Learning that the learning process can be both satisfying and educative is crucial in the education of a youngster. If a youngster depends primarily upon "reading" to learn in his early years he will not only be cheated of using his highest level cognitive skills (at that stage in his development) but he might initially (and forever) associate reading with the *act* of reading and not expect that it can give him learnings and joys beyond the other ways of communicating (which reading cannot do in the early grades). There is so very much a child can learn through actual experience, through listening, and speaking, and seeing—and so relatively little the child can learn through *reading material* that can be introduced even in the most advanced early grades. Almost every primary school youngster can listen and speak at least two years beyond the level at which he can read. Reading here can be a drag on learning.

There is ample evidence that in the

upper grades—where reading should be the medium through which the student develops his cognitive potential—many youngsters already have associated the act of reading with something they are expected to do instead of what they feel would be more interesting and informative. These readers may not, because of the materials they have read in the primary grades, expect to deal with writing that includes the thoughts, evaluations, descriptions, and ideas which cannot and should not be introduced to youngsters not mature enough to deal with them. For how long are we going to continue to develop readers who "skip the parts where people do not talk." At about age nine or ten development allows for maturing cognitions that can best and often only be obtained from reading—not through a picture, actual experience, or visual examination. To a great extent the nine or ten year-old has played out what he can get from "non-reading" and needs to deal with thoughts and ideas not available to him without reading. Great men of ideas have long passed away and the middle grader is now ready to give them a hearing—through reading. Persons he could never hope to meet are "listened" to—through reading. The immediate environment is becoming less adequate for the student's conceptual, experiential and vocabulary growth. He is now ready to learn and experience—through reading. It is ironic that *before* fourth or fifth grade, when reading should be least important in the education of the child, the most intensive reading instruction is given. But in the upper grades, when reading becomes crucial in the education of the child, reading instruction is offered to a significantly lesser extent.

First Things First!

In today's primary grade classroom the craze to teach reading sooner is inundating the rest of the curriculum. It is more reading, often at the expense of other communication skills! Youngsters are working in a medium that is relatively new to them. Ideas cannot be explored nor can new ideas be acquired through reading, because word-analysis ability needs about three or four years to catch up with what a youngster can understand. As stated, most first graders are reading at least two years below their comprehension level.

Therefore, if reading is not important to the immediate education of the early grader and if other media can more effectively educate the child, why do we not stop and ask: Why are we pushing reading so heavily in the early grades? Why not push (not just include) learning through listening *before* reading. Actually, to a youngster listening is the same as reading, only easier and more productive. Words mean the same whether they are spoken or written. Youngsters have been listening all their lives—it would be (and is) sheer ignorance not to utilize listening to its fullest when it can do the job. Almost anything that can be read by a youngster through second grade could be handled at a much more advanced and interesting level through listening. If we were to wait until a youngster's word analysis ability caught up to his conceptual ability before we "pushed" reading, the youngster would, from the start, feel the power, strength, and uniqueness of reading. His only control would be his own interests and strivings.

Also, think of the dimensions in learning we could reach if we developed materials to listen to with the same dedication that we develop material to read. It is conceivable that the level of ideas handled at first grade through listening would be more like those introduced at our present third grade. The primary aim, then, of early reading instruction would be the teaching of the "decoding" so that the youngster can, as soon as possible, drop the need for an auditory cue and become effective in handling language through visual (written) cues. If, during that time, he has developed vocabulary, concepts and interpretive skills through listening, seeing and doing, he will be catapulted to much higher levels when reading becomes appropriate. But to keep the youngster tied to reading before word-analysis ability matures is to hamper his educative process.

The writer has elsewhere described an approach to the teaching of reading that holds the "use" of reading in abeyance until the teaching of word analysis is completed" *(4)*. This is not only possible but, as has been discussed here, also desirable.

Summary

This writer feels that the early teaching and emphasis upon reading has within it inherent factors which may account for the relatively poor record we have as "readers." (How often do adults turn to reading for what it alone can give?) Because of the developmental nature of reading versus the other communication media, "reading" ability is years behind in the primary grade youngster. Thus what the youngster can "read" is usually not nearly as rewarding to him as what he can hear, see, examine, or do.

The only task unique to early reading is that of learning the word-analysis skills. If, in the early grades, concepts were to be developed solely through listening, speaking, feeling, seeing (instead of through reading), the potential for growth would indeed be great. Later when the child has become proficient in word analysis, he can be presented with material to read at levels truly commensurate with his stage of development and truly able to fire his imagination and thought processes. Then perhaps we can hope for a nation of "readers."

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11. Performance on Selected Prereading Tasks and First-Grade Reading Achievement

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A NUMBER OF recent investigations provided the framework for the present study by calling attention to certain prereading tasks which warranted further investigation. Gavel *(4)* and McHugh *(6)*, for example, demonstrated the value of recognition of letters named as a predictor of beginning reading achievement. In a frequently cited investigation, Goins *(5)* discovered that a child's ability to complete a mutilated design, when a completed design was in view, had a relatively high correlation with early reading success. A study of seven prereading visual discrimination tasks conducted by Barrett *(1)* revealed that letter and number naming, word matching, and design completion, provided the most valuable information with respect to eventual reading achievement. Dykstra *(3)*, on the other hand, found that of the auditory discrimination abilities he measured, discrimination of beginning sounds and vowel sounds in words correlated best with first-grade reading achievement. Finally, an investigation by Clymer *(2)* demonstrated the predictive possibilities of a copy-a-sentence task, when it was scored in terms of the number of words discernible in the child's copy.

These six findings, then, provided the impetus for the present investigation by yielding information upon which to base the development of a battery of prereading tasks. Such a battery, it was thought, would permit a cross validation of earlier results and an evaluation of the predictive relationship between a relatively unique, but worthwhile combination of prereading tasks and early reading achievement.

Purposes of the Study

In specific terms, the purposes of the study were: (1) to determine the correlation between first-grade reading achievement and each of seven prereading tasks; and (2) to find the predictive relationship between success on seven prereading tasks in combination and first-grade reading achievement.

Measuring Instruments, Subjects, and Procedures

Measuring Instruments. The prereading abilities considered in this undertaking were measured with the second experimental edition of the Clymer-Barrett Prereading Battery. The Battery included the following tasks:

1. Recognition of Letters
2. Matching Words
3. Discrimination of Beginning Sounds in Words
4. Discrimination of Vowel Sounds in Words
5. Discrimination of Ending Sounds in Words
6. Shape Completion
7. Copy-A-Sentence

Reading achievement was the total raw score on the Gates Advanced Primary Reading Tests, Word Recognition and Paragraph Reading.

Subjects. The initial sample included all the first-grade pupils entering 34 public schools in a middle-sized city in the Midwest. It was composed of slightly more than 3,000 students; however, attrition occurred during the academic year, and complete prereading and reading achievement data were obtained for 2,468 subjects. Although the full range of socioeconomic levels was represented, the majority of the pupils in the final sample were from middle-class homes. Boys and girls were about equally distributed.

Procedures. Since the investigation was concerned with the predictive validity of the selected prereading tasks, the data were collected in two stages. During the third week of school, the Prereading Battery was administered to the pupils by the classroom teachers. In the second week in May, or approximately eight months after the Prereading Battery was administered, the pupils completed the Gates tests.

In keeping with the purposes of the investigation, the data were analyzed in two ways. First, the raw scores on each of the tasks in the Prereading Battery were correlated with the total raw scores on the Gates Tests. Second, multiple regression analysis was employed to obtain a multiple correlation coefficient between the predicted and observed reading achievement scores, with the seven tasks as independent variables.

Results

On the basis of the information presented in *Table 1,* several observations appear to be appropriate with respect to the initial purpose of the study. First, the table indicates that the seven correlation coefficients ranged from .26 to .59 and that each of them was significantly different from zero at the .01 level. Second, the rank order of the correlation coefficients, as presented in the Table, shows that Recognition of Letters had the highest relationship with beginning reading achievement, .59 while Discrimination of Beginning Sounds in Words correlated second best with the criterion, .51. Third, Table 1 reveals that matching words, discrimination of ending sounds in words, shape completion and copy-a-sentence possessed similar relationships with first-grade reading achievement, *e.g.,* .38, .38, .36, and .36, respectively, but that the magnitudes of the correlation coefficients in these instances were somewhat less than those for Recognition of Letters and Discrimination of Beginning Sounds in Words. Finally, Discrimination of Vowel Sounds in Words, was found to be the least valuable predictor of early reading achievement.

TABLE I

CORRELATION COEFFICIENTS FOR SCORES ON EACH OF THE SEVEN PREREADING TASKS AND TOTAL SCORE ON THE GATES ADVANCED PRIMARY READING TESTS

Pre reading Tasks	Correlation Coefficients for Prereading Tasks and The Gates Advanced Primary
Recognition of Letters	.59
Discrimination of Beginning Sounds in Words	.51*
Matching Words	.38*
Discrimination of Ending Sounds in Words	.38*
Shape Completion	.36*
Copy-A-Sentence	.36*
Discrimination of Vowel Sounds in Words	.26*

*Significantly different from zero at the .01 level.

The second purpose of the investigation, as stated earlier, was to determine the predictive value of the seven prereading tasks in combination. To accomplish this objective, a multiple correlation coefficient (R) was obtained by means of multiple regression analysis, in which the seven prereading tasks were the independent variables and reading achievement was the dependent variable. The analysis produced an R of .66 which was significant at the .01 level.

Discussion

The results of the investigation provide a basis for a number of comments and cautions. First, the finding that recognition of letters and discrimination of beginning sounds in words were relatively good predictors of early reading achievement gives support to the work of Gavel *(4)*, McHugh *(6)*, and Dykstra *(3)*. However, the strong showing of recognition of letters should not only be attributed to the apparent fact that better beginning readers could recognize more letters than poor readers, but also to the possibility that this ability may be a reflection of a rich experience with a variety of written materials which enabled children to learn to recognize letters. Thus, it should not be inferred from this study that teaching children to recognize letters by name will necessarily ensure success in beginning reading. Discrimination of Beginning Sounds, on the other hand, could have achieved its status in the study because of the sequence of phonic skills development followed by most basic reading series; that is, series begin phonic instruction with beginning consonants and the sounds they represent. Nevertheless, it seems that these two prereading abilities possess characteristics which might enable them to provide a quick estimate of youngsters' possible success in beginning reading. At least, they warrant further study with this hypothesis in mind.

Second, although matching words, discrimination of ending sounds, shape completion, and copy-a-sentence did not possess the predictive power of recognition of letters and discrimination of beginning sounds, they may be of diagnostic value. For example, the combination of discrimination of beginning sounds and ending sounds in words may provide diagnostic information about a child's gross ability to perform auditory discrimination as it relates to the actual reading task. On the other hand, matching words, shape completion, copy-a-sentence, and recognition of letters all deal with various dimensions of visual discrimination which are basic to learning to read.

Third, the magnitude of the multiple correlation coefficient found does not permit precise prediction of reading achievement for individuals on the basis of results from the prereading battery. It does indicate, however, that the battery makes a considerable improvement on chance predictions. As is the case with all paper and pencil instruments of this nature, the battery must be supplemented with teacher observation and judgment to do the best job of determining a child's over all preparedness for, and eventual success in, reading.

Finally and in conclusion, the tasks studied, with the possible exception of discrimination of vowel sounds, seem to have predictive and diagnostic possibilities and appear to warrant further study individually and in combination. For example, factor analysis of the Battery as a whole would provide information about its construct validity and would indicate whether it measures the factors of visual discrimination, auditory discrimination, and visual-motor coordination as originally intended by its authors. A second possibility here is an investigation of the ability of the six tasks to predict reading achievement when different methods of instruction are employed. Such an inquiry might provide insights into the diagnostic as well as the predictive value of the tasks. A final recommendation for further study is that the Battery should be cross validated on different samples. Although it functioned relatively well for this middle socio-economic class sample, it should be used with a more heterogeneous sample as well as with a homogeneous lower-class sample to obtain more information about its predictive validity in different settings.

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G. RESEARCH DESIGN

1. Common Flaws in Design

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THE JANUARY issue of *The Reading Teacher* listed the preliminary program of the IRA convention and titled a session "Improving Flaws in Design." When I showed the title to one of my colleagues who is an English scholar, he roared with laughter and said, "My design is awful flawful."

When one finds such inaccuracies in language the temptation is almost irresistible to attempt a serio-comic treatise on the subject. Flaws are everywhere—improved flaws are rare. One could conceive of a research proposal in which the flaws in design were so improved as to be unrecognizable as either research or common sense.

However, temptation must be overcome. We are expected to respond to what is meant, not to what is said. Responding to what is meant is important in all avenues of human communication—it is of crucial importance in research. The most serious flaw in a research design is lack of specificity. If specificity is not evident in every aspect of a research design, the whole proposal is suspect because the reader cannot be sure what the investigator intends to do. In fact, there is room for considerable doubt that the investigator really knows what he intends to do. The reader must be sure what the problem is, what the hypotheses state, and what statistical design the investigator plans to use. Both the reader and the investigator must know what is meant. The reader can be guided only by what is stated.

During the several years I spent with the Bureau of Research of the U.S.O.E., several hundred research proposals came across my desk, approximately twenty per cent of which were approved. Every proposal which comes to the Bureau of Research is read carefully by several members of the Office staff. In addition proposals are read by research scholars who represent every major area of research interest.

Proposals which are not approved are generally so rated because of basic flaws, usually in design, which make them unacceptable as good research. Some proposals are approved with certain provisions. This means that flaws exist in the design, but in the opinion of the evaluators the flaws can be corrected. In these cases the research coordinator acquaints the investigator with the stipulated provisions and works with him to improve the proposal so that a contract can be negotiated.

One of my former colleagues, Gerald Smith, now at Syracuse University, analyzed 1,091 unsuccessful research proposals, 416 of which were eventually eliminated because they did not follow the Cooperative Research format or had been submitted previously. His original study is available in unpublished form at Columbia University and is titled *Inadequacies in a Selected Sample of Educational Research Proposals*.

One of the most common inadequacies in research design is the way the problem is stated. The problem section of a research proposal should outline and delimit the problem clearly. An example of a non-delimited problem is a proposal which sought to locate new sources of individuals who could be recruited into education as teachers. The problem section consisted of a series of questions:

1. How many liberal arts graduates can be recruited into teaching and how many of these are in rural or in urban areas?

2. Is it possible to reorganize our schools and use our teachers more effectively?
3. Can the problem be solved by using teacher aides?
4. How many people have valid teaching certificates and are not using them? Could they be induced to return to teaching? If so, what refresher courses are needed?

All of these questions appeared in the problem section of one proposal and serve as a prime example of failure to delimit a problem. Several research projects would be needed to answer all the questions presented.

Smith found, in examining proposals submitted to the Cooperative Research Program during a three year period, that the most frequent inadequacy — which occurred 87 per cent of the time—in the problem section, was the lack of a theoretical framework from which to approach the problem. Smith states that a fully developed theory has (1) an explicit set of basic postulates or assumptions, and (2) an equally explicit set of logically derived hypotheses.

The problem of lack of significance also occurred frequently—66 per cent of the time; usually an attempt was made to oversimplify complex problems or to present them in such a way that it did not appear that the investigator was building upon previous research in the area. An example is this statement of a problem: ". . . identification of factors accounting for bimodalities in data on student achievement at an institution."

Once an individual selects a problem for research, he must familiarize himself with the previous research conducted in the area. Frequently, a research project builds upon results of past research, or it may replicate a completed project to determine whether the same results will be obtained and, if not, to find the reasons for the differences. Certainly no researcher would be so naive that he would fail to examine the body of research to see what previous work had been done in the area. Such examination should represent a critical analysis of the research design as well as the results of the research, and should demonstrate a relationship between past research and the proposal. This relationship should be demonstrated by indicating the basic weakness, if any, of previous approaches, by indicating that the present study follows leads uncovered by past efforts, and by demonstrating that the proposed study is significantly different from past efforts. A listing or summary of research with no description of its contributions to the field is of little value.

Provincialism in a review of research may be another inadequacy. Smith's analysis revealed four types: provincialism of scope, of geography, of substance, and of method. A proposal based on a single research study certainly is narrow in scope and places unnecessary restraints on the investigator, for the rest of the related literature should provide something of value such as suggestions concerning sampling, instrumentation, theoretical framework, or other aspects of the total research process. If all studies cited were conducted at a single institution, one wonders if the investigator didn't want to bother to check another library. If all studies reviewed were carried on in a single state, one wonders if projects conducted in other states might not have provided useful information. If the related research is concentrated on only a limited number of substantive aspects of a problem, the investigator does not have an adequate base for his research. Provincialism of method is obvious if the studies reviewed are conducted with the same instrument. Provincialism indicates that only a part of the total past research effort was considered and that more information which was relevant to the current problem and means of attacking it could have been used by the researcher.

A more serious inadequacy in the research proposal is the failure to include a review of related research. Some proposals contain nothing but reviews of related literature. One assumes that an investigator examines the body of research before he outlines his proposal. The inclusion of non-research references provides no information concerning the researcher's knowledge of the previous research. Although the non-research references may provide valuable information, the foundation for new research should be previous research.

In citing research some investigators generalize without supporting evidence, or simply state that research has been conducted in the area, or amplify results of investigations without specifically citing them. Such proposals are usually not approved for support. The proposal must contain a firm and specifically stated base in previous research. The proposal should also contain pertinent references to related literature.

Smith found that three per cent of the proposals he examined included no objectives, hypotheses, or questions. An additional 63 per cent were inadequate in the clarity with which the objectives, hypotheses, or questions were presented. The objectives and hypotheses may be stated too broadly for research purposes; for example:

> The broad hypothesis is that a procedure can be followed which will lead to the initial formulation, revision, and final development of a broadly conceived theory of education based upon psychological and other relevant research findings to date.

Probably the writer had something in mind when he made that statement, but it is difficult for the reader to determine just what.

The objectives, hypotheses, or questions must be stated with clarity if the research is to focus on a particular aspect of the problem. Smith found that many of the proposals he examined were seriously inadequate in this respect. Perhaps the writer has worked so intimately with his proposal that he assumes that his reader knows as much about the problem as he does.

In a well written proposal not only are the objectives, hypotheses, and questions clearly stated, but the technical concepts to be employed also are defined with clarity.

If the relationship between the theoretical framework and the objectives, hypotheses, or questions is to be adequate, the framework and theory must be developed in the statement of the problem.

When one thinks of flaws in design, the first thing that comes to mind is the procedure, since it is so intimately a part of the design. In determining the population to be used in a study, the researcher must employ appropriate sampling techniques. Common inadequacies in sampling include incompleteness, a lack of clarity in the sampling plan, and lack of a well defined population.

Occasionally a researcher will use a sample which is based not upon the purposes of the study but rather upon the proximity of a particular group of subjects. Perhaps he may use an intact group, a group which existed before the study began. He must demonstrate clearly that such a group is adequate for the study he proposes.

Convenience and economy are legitimate criteria to use in selecting a sample. However, if they are the only criteria, the sample must be considered inadequate. The term "representative sample" is a familiar one; however, researchers often do not indicate the population of which the sample is representative. A sample should be representative of a particular, finite population, and this population should be described in the proposal.

Another inadequacy in proposals concerns instrumentation. Occasionally the techniques and/or instruments are not described clearly and completely; if the investigator simply states that he will use a reading and achievement test but fails to state which test, the reader cannot determine whether the instrumentation is adequate to gather the necessary data. If the instrument will provide reasonably reliable data to answer the questions raised in the hypotheses, it is an appropriate instrument to use. The types of instruments vary with the purpose of the study; a questionnaire or a check list might be appropriate in one proposal and totally inappropriate in another.

Smith found that 17 per cent of the proposals he examined did not present a complete description of the statistical treatment of the data. Unless a complete description of the statistical method is given, the reader cannot discover what the investigator plans to do.

Another area of inadequacy is found in the language used for communication. Reading published research is often difficult for the layman if a great deal of statistical terminology is used. However, research proposals are written to be read critically by people familiar with the vocabulary of research design and statistics. Sometimes the writer may employ too much unscientific language; sometimes he organizes his proposal poorly, and less often he may produce a proposal which lacks conciseness and sufficient detail and is difficult to read because the author overuses technical or pseudotechnical language.

A relatively new term now in popular use is "Hawthorne Effect." It refers to any fault in research by which one group of subjects either receives or believes they are receiving special consideration during the course of the study which would not have been given to a control group. The chance of a Hawthorne effect must be controlled or the results of a study may be invalidated.

Smith drew a number of conclusions from his examination of the research proposals. However, as a good researcher does, he warned that they are true for educational research only as the entire field of educational research is reflected in his sample.

1. The state of educational research is at a relatively low level of sophistication.
2. There is little agreement about what constitutes research in education.
3. Much of educational research is focused on relatively simple, straightforward, "surface" problems.
4. There is little emphasis upon theory in educational research.
5. Researchers have difficulty in differentiating between research and practice in education.
6. Educational researchers are making only minimal use of the previous research which has been done on similar problems.
7. There is little agreement about what a review of related research is supposed to accomplish.
8. Researchers are paying too little attention to the problems of good communication.
9. Hastily conceived ideas are translated into proposals without a sufficient period of germination.
10. The lack of detail is perhaps the one single most frequently occurring inadequacy in educational research proposals.

Smith's list of inadequacies or flaws in design of educational research may sound too much like an indictment of all efforts, but it should not be thought of in those terms. It represents a consensus of reasons that more than 1,000 research proposals were judged not worthy of Federal support.

Many of these proposals started out with worthwhile questions or ideas. It is tragic that good ideas are not translated into good research proposals. The purpose of educational research is to discover truth. A research effort that is successful yields a firm base for quality education. Quality education is worth the effort required to design a good research proposal.

2. The Essentials of Good Research Design: The Fruitful Hypothesis

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SEVERAL MONTHS AGO when I was invited to come before the IRA Convention, I was asked to discuss "The Essentials of Good Research Design." The search of my experience and a review of the literature caused me to write three papers. The first suggested how the "National First-Grade Reading Studies" could have been improved; the second suggested that the greater use of inferential statistics could strengthen our experimental designs; and, finally, the third paper addressed itself to the generation of hypotheses. The present paper, then, turns out to be a hybrid. I will use the high points of the statistical paper to introduce what concerned me most in the third.

The points which I stressed in the second paper were first, that we should pay more attention than we have in the past to (a) the selection of random samples which are representative of well defined target populations and (b) the random allocation of the members of that sample to both the control and experimental conditions of our experiment. Second, that we would do well to keep the purpose of our search clearly before us when we choose that statistical procedure which will best fit our experimental design. Such an effort suggests the advisability of using both *planned* and *post hoc* comparisons with, let us say, an analysis of variance, covariance, and/or Scheffé's method. In this way, we could not only evaluate the main effects, but also the interactions which now confound many of our experiments. In the *planning* stage we should take the trouble to state the null hypothesis and its alternative. Our *alpha*, the level of significance upon which we will base our decision rule, likewise, should be decided upon before the experiment is begun. To make certain that the design gives us the power to reject the null hypothesis, should it be false, we must also make sure before we begin the experiment that the number of subjects we intend to use will be adequate. Again, many of us continue to indulge in the meaningless habit of remarking at the end of an experiment that the difference between the means of the experimental and control groups was highly significant, very significant, or almost significant. This is nonsense. Any obtained mean difference is or is not significant. However, since we don't know, we agree to accept or reject the difference at some prior stated confidence level; and then, on the basis of this decision rule, act as if it were, indeed, true or false.

Another habit we have fallen into which "short changes" ourselves as well as our readers, has to do with the tendency to forget our purpose and thereby end our analysis too soon. The point is this: in most cases the acceptance or rejection of a null hypothesis merely confirms a preconceived judgment which the experimenter not only holds but held so strongly that it motivated him to do the experiment in the first place. Such a statement as, "The mean contrast was significant at the .01 level," adds very little to our knowledge for, as indicated above, we had already anticipated the outcome of our experiment. Further, we should be aware of the fact that even very small differences can always be made significant if the *N* of our sample is made large enough. In contrast, what we really want to know is how much our experimental treatment contributes to the variance of the criterion. I suggest, therefore, that after we have established the confidence intervals of our means we go on to calculate *omega* squared, an extremely important and long needed statistic only recently introduced into the field of education. Omega squared is comparable, under certain conditions, to the squared correlation. It is an estimate of the strength of a relationship. For instance, in the six National First-Grade Reading Studies which I examined, no teaching method appeared to be superior to any other method, save that Harris and Serwer (1966) found their skill-centered approaches were superior to their lan-experience approaches. Now, in none of these studies was *omega* squared calculated; however, Harris and Serwer did utilize an elegantly conceived technique in lieu of *omega* squared. They converted all raw score means into grade score means; and lo, when this was done, the statistically significant differences were all reduced to less than one-tenth of the achievement that normally takes place in the first grade. In reality then, we see that a statistically significant difference is of minimal educational importance. Harris and Serwer are to be congratulated for carrying their analysis to a meaningful and logical conclusion.

My second paper ran along in this vein in great detail, but the more I thought about it the more alarmed I became. I thought to myself, except for the highlighting of a few concepts, as I have just done, the actual detailing of the mechanics of modern statistical thinking might better be left to more authoritative sources such as Hays (1963) and Guenther (1964).

However, as I read these and other good books on experimental design and statistical analyses, I was struck by the fact that there appeared over and over again an unexpanded but crucial admonition. This admonition always appeared in italics, and ran about as follows: *To be productive, the statistical techniques or experimental designs about to be described must be applied to hypotheses which are well conceived, meaningful, and reflect important psychoeducational problems.* However, having bowed in this direction each author hurried on to explain the theory and practical advantages of certain wonderful techniques not unlike those that I have been enumerating. So, finally, I determined to take this opportunity to address myself to this important problem which I did *not* find covered in any of the textbooks; *i.e.*, just *how* does one go about generating meaningful hypotheses.

First, let it be understood, I believe there are innumerable ways by which one can generate creative and fruitful hypotheses. For instance, as one reads the literature and as one contemplates the problems described, burning questions force themselves into one's mind and as a rule hunches accompany these questions giving us an initial direction as to how we might go about forcing a "yes" *or* "no" answer to relevant hypotheses *or* better yet, yielding an indication of the strength of the relationship betwen our criterion and the independent variables with which we are most concerned. Put another way, as we evaluate the explanation given by another scientist, or as we critically review an experimental design, we are struck by what Einstein calls the "holy doubt." We perceive that if such and such had been taken into account the experimental results might have turned out differently, or the use of a different theoretical framework would have led to a more plausible explanation.

On the other hand, our reactions may be positive. We may become so excited about the insights that seem to come to us as we read a particular theory that we, using it as a base, begin to speculate on how it could be applied to an old unsolved problem that has been bothering us for a long time. From this position, then, we begin to formulate a number of new notions as to what might lead to what. But as we think and work with these vague notions they slowly take shape until finally we can set them down as clear-cut and meaningful statements, that is, as testable hypotheses. But the crux of generating concepts that lead to experimentally meaningful hypotheses is that they must be conceived within the framework of theory so that the experimentor's activities are raised above those of the dabbler, the tinkerer, the amateur. For in formulating his hypothesis, the professional scientist must try to imagine the dynamics of *why* his proposed experiment will yield the results he anticipates for it.

But the question remains, "Just how does one generate a fruitful hypothesis?" *After* one knows the *literature* and *after* one has the mental set of a particular *theory*, then one of the greatest catalysts in the field of educational psychology for the conceptualizing of fruitful hypotheses, I believe, is the persistent and intense thinking that one can force himself to do when he allows himself to tolerate a prolonged and frustrating contact with a real problem—in the laboratory, in the classroom, in the clinic, or simply in the mind. Newton once retorted to a lady's question of how he was able to think of the hypothesis that led to the law of gravity with, "By constantly and persistently thinking about it!"

Now I would like to illustrate my point by vicariously bringing you into prolonged and persistent contact with a difficult learning problem. As I develop the chronology of this case history, I ask you to think. You will get vague notions at first, but it is my hope that these will finally culminate in nascent hypotheses which will be so exciting that you will ponder and develop them to where you can put them to the acid test of experimentation. But first let me give you the mental set that caused me to take on this case.

For years I had pondered the apparent miracle which takes place in the dynamics of children who fail, but find themselves. To be more specific, from time to time we meet a boy who has experienced nothing but failure in school and because of this constant inability to cope with the academic demands of society he has taken on a defensive position which precludes success in the hands of even the best teachers. And yet, we also note that some of these children after being tutored do, in fact, make miraculous turnabouts and then go on to achieve outstanding success even in the very areas in which they were for so long failures. When such students finally "catch on" we often say that they have learned how to study, they have learned how to concentrate, they have become motivated, or, in more psychological terms, they have learned how to learn. But all these phrases are "mother hubbards" for they cover everything and touch nothing of the *dynamics* which actually took place inside the individual child.

From the substrata-factor theory I have developed a number of interesting hypotheses concerning what might be happening when this takes place. The one I wish to use as an example today, however, has to do with the integration of some possible physiological parameters of learning into the psychoeducational hierarchy, or working system, of those subabilities which we already know must be mastered in order to achieve real success in the field of reading. But, this is my mental set, you bring your *own* theoretical preferences to bear on the problem as I outline it to you.

Stanley is a healthy, slim, well-built 16 year old teenager who has Caucasion features but is very dark. He has been expelled from at least five schools beginning with the third *day* of his nursery school attendance. He came to my attention through a referral from Dr. DC at the University of California Hospital. At that time, he had just stolen a car and again was in the process of being expelled from high school. He has always been hyperactive and has never needed more than a few hours sleep a night. When he gets tired he just puts his head down, goes to sleep immediately, and wakes up in a few moments completely charged and raring to go. In spite of the fact that he is hyperactive, Stan has always been very slow in his language development.

Stan was adopted when he was *five days old*. His real parents are dead. His foster parents have fair skin and hair; they are highly intelligent, verbal, professional people who have always sought the very best help they could find for Stan. The records indicate that because he was hyperactive he was taken, at *3 years of age*, to Dr. S. Dr. S's report indicates that Stan had asthma, temper tantrums, and a severe speech handicap. Thus, the boy was referred to Dr. L for speech therapy. Although her prognosis indicated that it would take a year to overcome his handicap, Stan's improvement was so remarkable that he was discharged from speech therapy within two months. At that time a Stanford-Binet gave him an IQ of 102. He was put on medication to calm his hyperactivity but according to his mother it was of little help.

When Stan was eight years old he got into such trouble that he was taken back to Dr. S. This time he was given a complete neurological examination, including an EEG. All findings were within normal limits. A WISC examination gave him a verbal IQ of 85, and a performance of 113. He should have been reading at the third grade level but was reading only at the second. Nevertheless, Dr. S. saw him as "A friendly, warm little boy who was disturbed over his dark coloring." The boy complained that the "kids at school called him 'Nigger,'" and the mother indicated that many times Stan had asked that she put bleach in his bathwater. Dr. S commented that the boy is anxious, concerned, takes his social relationships too personally, and at times is over-protected by his parents.

When Stan was *11 years old* he was brought to the University Counseling Center. He had been enrolled in the fourth grade in a private school, but because he was still not reading he was being transferred back to the public school. The workup of the Counseling Center indicated that Stan not only had good physical coordination, but perfect pitch. Stan was reported to have a beautiful singing voice and was in the choir when he went to the private school. He also showed a good deal of mechanical ability, for the parents state that when Stan and his brother build model airplanes, Stan cannot read well enough to follow directions so he "just puts them together," while his older brother, being able to read very well, always meticulously and carefully follows the directions. Nevertheless, Stan's productions always turn out to be better than his older brother's. The parents also indicated that as a young child and up until fairly recently (11 years of age) Stan was always truthful, never malicious, loved pets, and was very sensitive to other people's feelings. He was very emotional, and was very sympathetic to anybody in trouble.

A primary Stanford Paragraph Reading Test gave him a grade score equivalent to 2.4. You will recall that he was *eleven years old* at that time. The report also indicates that he could concentrate for only a few moments at a time because he was fiddling with pencils, squirming, scratching, stretching, or simply staring into space. A WISC gave him an IQ of 70 on verbal, and 121 on performance; an amazing differential of 51 IQ points. A Stanford-Binet gave him an over all IQ of 99. The examiner makes a comment which is repeated many, many times by all who have worked with the boy since that time, and that is: "While apparently not unfriendly, Stan is never talkative, and his favorite response is a simple smile, a shrug, and an "I don't know." On the recommendation of the University Counseling Center he was sent to a Parent-Child Clinic to be tutored in reading. After some time he was dismissed still not reading up to par.

He was now sent to a private ranch-type school in order to give someone else a chance to teach him how to read and how to behave. However, the mother states that when he came out of the ranch school he still could not read, but he had taken on a considerable number of bad habits such as swearing, drinking, and smoking.

Then he entered the eighth grade in a public junior high school. The records indicate that by taking certain shop courses he made a C- average. However, he was soon barred from shop because he would not observe the safety rules the instructor had set down for handling power tools. About this time he was picked up by the police for belligerence. Since he still could not read he was sent also to a parochial reading clinic. The test from that Clinic indicates that, while he was supposed to be achieving at the eighth grade level, the Grace Oral Reading Test gave him a reading equivalent of 3.1. His scores on silent reading tests were similar. Stan was dismissed from the clinic because he was considered to be "mentally retarded." The Clinic report states that "Stan is a very tense and withdrawn boy. He carries an almost hostile expression which seldom disappears from his face. Rapport with him is extremely poor and there remains a constant negative undercurrent even where he outwardly complies to the demands of his surroundings." It goes on to say, "Stan hardly talks at all, bites his fingernails, is reluctant to the point of stubbornness, and so frustrated that he is incapable of normal cooperation. On a Wechsler-Bellevue he achieved an IQ of 80 on the verbal scale, an IQ of 101 on the performance scale, with a full scale IQ of 90.

In the first of last year, when Stan was *fifteen and a half years old,* he was taken to Dr. JB who referred him to Dr. DC. Dr. DC, a neurologist, reported the following observation, "On examination I found Stanley to be apathetic and reluctant to convey more than the minimum of conversation. . . . He admits that reading and mathematics have always been a big problem. Neurological examination revealed normal speech and hearing and normal vision. There was no evidence of visual defect. There were no visual, tactile or auditory inattentions and there was no left-right confusion. There was no rostral dominance, no finger agnosia, and no astereognosis. Coordination was excellent, the deepseated reflexes were physiological and the planter responses flexer. Reading abilities were very poor and the same was true of dictation and spelling. Stan had no idea of how to handle fractions and his writing was very immature."

In order to supplement his neurological examination with a psychological evaluation, Dr. DC referred him to Miss VS, a very fine school psychologist. She gave Stan a Wechsler Intelligence Scale for Children, Draw-A-Person Test, Bender Gestalt Test, Graham-Kendall Memory for Designs Test, Raven's Progressive Matrices, Wide Range Achievement Test, Spache Reading Diagnosis Scales, Perceptual Synthesis Test, Perceptual Analysis Test, Eisenson Examination for Aphasia (Adaptation), Auditory Discrimination Test, Proverbs Test, Absurd Sentence Test, Peabody Picture Vocabulary Test, Ammons Full Range Picture Vocabulary Test, Rorschach Test, and also made Observations of his Behavior. Obviously I cannot do justice to the scope of this evaluation in the few pages I have left, but I can summarize its findings by saying that on the WISC Stan made a verbal

IQ of 71, a performance IQ of 111, and a full scale IQ of 89. In the other scales which assessed various aspects of verbal ability he also did very poorly. But, as you would expect, he did well on most of those which assessed aspects of his performance abilities. Interestingly enough, on the Spache Reading Diagnostic Scales Stan was able to obtain a reading grade level of 5.0. The school psychologist's diagnosis indicated that from the Eisenson Examination for Aphasia, Stan evidenced a generalized deficiency in language that seemingly has produced an aphasic-like disorder affecting formulation and meaning. From the Rorschach, the examiner concluded that there was very little evidence of a significant emotional disturbance, although a considerable amount of anxiety was apparent. The school psychologist then suggested that there was an undiagnosed language problem. At that point Dr. DS referred the boy to me to diagnose that "undiagnosed language problem."

An oratorical question is in order: What would you have done with this boy at that time? Well, I decided not to waste time in giving this boy any more tests because I felt he had already been examined to death, so to speak. It was my considered judgment that further tests at this time would only contribute to his hostility, build a negative attitude toward me, and then I would never be able to get through to him. Furthermore, I felt that any tests in the verbal area would be quite unfair until at least he had learned to read and what's more, learned to trust me well enough to be able to express what was in his mind. With these two objectives before me I immediately started to teach him to read. I soon discovered that, as a matter of fact, this boy not only could not read at the fifth grade level, but he could not read fluently even at the second grade level. He made so many perceptual errors when he started that I soon shifted him to the preprimer of the Sullivan Programmed Reading Series. However, I did not use them in their prescribed way. For two months I never left him alone, but sat with him for a two hour session every day of the week as we went through the programed text together. After a couple of months I explained to him that neither I nor anyone else could solve his problem for him, that *he* must take the sole responsibility for solving his own problem in reading. I was there to help and would help him all I could, but more and more he would have to take the responsibility and the only way I knew of how to do this was to leave him alone now and then. When alone he was to continue to read from the Sullivan books into a tape recorder.

In about 5 months he had not only proceded through all nineteen books of the Sullivan series but had also gone through a programed spelling text. When he had finished the Sullivan books I brought him twelve hard bound books from the American Adventure Series edited by Betts. He gasped and said, "Do we have to read all those?" I indicated that we would read some of them and walked out of the room to answer the telephone. When I returned he handed me the book he had picked and we started right in to read. After the first lesson on the new book I asked him why he had picked *Kit Carson* and he said because the books on the left were too easy and those on the right of *Kit Carson* were too hard. It so happened that the *Kit Carson* book is at the fourth grade level and that's just about where the Sullivan readers terminate. We read through *Kit Carson* and he developed some fluency toward the end of the book.

There is a major factor of which I have not told you; namely, that in all his reading over some six months he never once showed any emotional involvement in what he was reading. He never once indicated by facial expression, by inflection in his voice, by action, by question, or comment that he was the least bit concerned with the outcome of any particular incident or of the story as a whole. He never so much as chuckled at a funny incident, or laughed at a joke. In short, he exhibited what I might term a complete and total emotional emptiness in regard to whatever he read. Mind you, however, his attitude toward me is, and always has been, one of removed friendliness.

On completion of *Kit Carson* he next selected *John Paul Jones* of the same series. *John Paul Jones* is at the high sixth grade level, and this gave him some trouble. One day, when he was about two-thirds through the book, he said, "Oh this isn't real, there never was a man John Paul Jones." I explained to him that John Paul Jones and Kit Carson were both real people and that John Paul Jones was in fact the father of our Navy. After that, he became a bit more interested and in the last two chapters I fancied I could detect some concern on his part for the safety of Jones, but I'm not sure. Most children, you understand, are held spellbound by the intense emotional grip of this story. Besides this emotional emptiness and lack of identification with the heroes of the stories, Stan's basic response to any and all of my questions for the first six months was, "I don't know."

How well does Stan read today? Well, the other day he was tested on the EDL Cards before the eye-movement camera. He made comprehension scores of from 70 to 80 per cent on all cards tried and we used one card at each level from Grade two through college. Nevertheless, his eye movements were still very immature. Recently, he has been writing some short essays. They are interesting, but of course, a great deal of work still needs to be done in this area also. All stories are factual and contain no emotional overtones. He has self-selected and read *The Catcher in the Rye*.

You will recall that the boy was sent to me in order that I might diagnose his "undiagnosed language problem." What you should also know is that in gathering his records I was strongly advised by two psychologists and one neurologist not to take the case as the boy *could not learn*. This was the challenge that caused me to eschew my formal research and to tutor this boy for two hours a day. Now, let us take stock. In the eight months he has been with me he has read some twenty-two books in my presence and scored 70 per cent on a short college reading card. In one sense, surely I have taught this boy to read, but I have not diagnosed the language problem I set out to diagnose, nor do I completely understand what is going on within this boy. Nevertheless, I'm quite sure that I know a great deal about his problem, and of one thing I'm certain: When he came to me the causes for his not reading were infinitely more complex than they were when he was in the second grade.

At the base of his trouble was and still is a low verbal ability. Yet, in spite of this handicap, we have taught him to read, albeit in a very mechanical and non-emotional way. Why does this pattern persist? The obvious hypothesis is that this once warm and friendly little boy has been battered around so much that he has built a protective shell around his self-concept so impenetrable that it will take more than ordinary means to draw it forth into the light of day. Now this kind of hypothesis is not very productive. Yet it is a first step.

However, since he has learned to read, he has taken the MMPI. Interpretation of the tape indicates many misinterpretations of items, but the F score also suggest confused thinking of self-depreciation. The profile itself suggests pathology with hostility projected both outward and inward and these may be holding down a lot of aggressive impulses. Nevertheless, our basic interest is in trying to understand the dynamics of learning to learn in the face of prolonged failure, so therefore, let us ask the question at a deeper level. To wit, just *how* can we go about drawing this boy out? For in spite of previous negative diagnosis by psychiatrists and psychologists, this boy is psychologically sick.

However, since we know he was once warm, friendly, and emotionally expressive, humanely, we are obliged to assume that these traits are buried, asleep, but surely not dead. How do we reawaken them? The crux of generating fruitful hypotheses, then, I suggest, lies in just such *how* questions. Then, by striving to come up with speculative procedures designed to operationally answer the questions we will have generated the essential quality of meaningful hypotheses. In the present case, then, we again ask, what can we do, how can we draw him out?

Many nascent hypotheses should come to your minds, but in line with the notion I presented a few months ago in Dallas at the National Reading Conference (Holmes, 1965) I propose to reawaken the emotionality of Stan by operantly conditioning it to appropriate passages in the material which I will have him read to me. Because of my interest in the physiological foundations of learning, I perceive that it may be possible to monitor the emotional changes which I surmise are actually going on inside this boy by taking continuous polygraph recordings of the psychogalvanic changes that must accompany even his slightest covert involvement in the stories as he reads them aloud to me (and into the tape recorder). On parallel channels of my polygraph I have also arranged to record the changes in the oxygen saturation of his blood as it goes to the head. The transducer is imbedded in an ear piece and is used in combination with an oxyometer control circuit. I plan to use also a set of thermocouples to detect changes in the distribution of his body temperature as the story demands a greater or lesser amount of concentration on his part.

If, in fact, I am able to detect such physiological changes and if I can discover some sort of pattern, then, next I will try to force a contrived but appropriate outward expression on his face and in his voice whenever my instruments indicate parallel covert emotional peaks are taking place inside this boy. By appropriately reinforcing the overt expressions I shall try to *operantly condition* them to their covert counterparts. Although he may not even be aware of his feeling, my instruments should be able to detect them if they are there, and then perhaps by such procedures I will be able to draw them forth from the deep dark layers of his personality.

Once having done this, it is my hope to utilize the same setup to take him through a new programed text series on creative thinking recently developed by Professors Covington and Crutchfield (1965, 1966).

As of the present time, I readily admit, and you will recognize, that my hypotheses are both nebulous and fuzzy, but I am also quite sure that you will agree with me that they are both exciting and breathtaking in scope. For if we are able to "pull this off," as the expression goes, then educational psychology will have at its disposal a new technique for manipulating perhaps one of the most powerful parameters in the paradigm of any realistic learning theory. The real purpose of this paper, however, is to invite others to think along the line described above, and then to have experimental "go at it" themselves—for interesting theories and the hypotheses they generate should be an invitation to all experimentalists to try their hand at proving or disproving them.

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3. Research Design for Significant, Limited Studies in Reading

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SHALL WE FIND out about "the seven lively arts" of research design for significant, limited studies in reading? These seven elements in combination yield benefits even the muses would find advantageous were they researchers, too. Finding the optimal combination of these elements is truly more than an art. It is, to the researcher, the song, dance, and everything else the muses took pride in. And yet these elements are so ordinary that everyone should consider them when undertaking research in reading. If you consider carefully each of these elements and the proper "mix" of them each to the other, then talent in designing reading research will likely be acquired. Before we look at these seven elements, we shall consider what is meant by the words "significant" and "limited."

Significance and the "Big Picture" of Reading

The phrase "significant, limited research" sounds contradictory. Not so. Benjamin Bloom has put his finger directly on the heart of the matter of significance and limitation when he admonished, "Each piece of [educational] research must have a place in a larger conceptual framework" *(1)*. Although we have few global models of reading, the number is increasing. Singer has attempted such a model of reading focused on speed and comprehension *(3)*. Other investigators have attempted to develop models. Regardless of whether we adopt someone else's model of what the reading process and product involves, or create our own design, we must be more systematic and thoughtful than a well-known reading authority was while pursuing truth about our favorite topic—reading.

The reading authority had just reported on a major series of related research projects in reading. It was obvious to most of the audience that much tender loving care and money had gone into these studies. After the presentations, the first discussant on the program said that in all the many pages of the reports, and during the lengthy presentation, there had been only one reference relating these reports to anything else about reading. The reference was found in one small paragraph. The discussant went on to say that if as much effort had been spent in writing down the arm-chair theorizing about reading necessary for these studies as had gone into carrying out the studies, then the results could have been meaningful. As reported, the results were neither meaningful to the discussant nor to this observer. We must relate what we are doing to the bigger picture of reading to have a truly significant study.

The idea that reading research must be related to a big picture of reading to be meaningful is not intended to disparage the current divide-and-conquer approach to reading research observed by Joanna Williams *(7)*. Reading is too big to attack head-one. And yet an effort must be made to develop all encompassing models of reading while the divide-and-conquer approach to understanding reading is proceeding.

Significance and the Terminology Jungle

A lack of precise terminology plagues the researcher of reading. We try to define our key terms as we go or we set aside a section of our report for this purpose. And while we are careful to tie down these key terms, the so-called "common" terms run away from us. As one example, James Kerfoot has pointed to the confusion which abounds in the area of reading comprehension *(5)*. "Making inferences is: for Bond 'interpretive reading,' for Durrell 'elaborative thinking,' and for Russell 'creative reading.' "

Perhaps the best we can do, lacking a taxonomy or basic dictionary of reading terms to which many persons refer, is to use the common expressions within the English language, and define this common language to ensure at least a degree of understanding by the reader of our research. If we use the vernacular precisely and consistently, significance may follow.

All research is limited. Every reading study covers just a portion of what reading is. A partial reason for this is that the acquisition of reading skill is accomplished because many influences outside of school affect it. If there is one idea coming into prominence from the accumulating wealth of data about reading it is this—that reading is a much more complex process than previously believed; and that a large portion of this complexity is due to influences other than just school and direct reading instruction *(4)*.

The Seven Lively Arts of Research Design

David Krathwohl has pointed out that all research designs are essentially compromises with reality *(6)*. The essential skill of research design, is the ability to achieve an optimal combination of seven lively arts. These seven lively arts are:

1. stating a testable or answerable problem;
2. heightening the visibility of the variable(s) being studied;
3. fitting the design to the setting of the study;
4. relating the experimental effect to the experimental variable; and the variable to the effect;
5. eliminating contamination;
6. providing for efficient, effective and economical procedures; and,
7. maintaining realism throughout.

When viewed from the realities of the research situation: the time, place, funds, people, procedures and goals, compromises with reality are essential.

We will spend the remaining portion in giving a broad brush treatment to each of these seven lively arts of research design for significant, limited studies. A detailed analysis of each will not be possible. The muses will look the other way.

The first art: stating a testable or answerable problem. This art involves stating the problem so that a clear and concise question (or questions) to be answered emerges. Theodore Clymer has held this to be the first essential ingredient in research design *(2)*. In parametric experimental design it is essential to word the question as a negative statement involving the key element (or variable), the effect of which the researcher seeks to measure. This statement, known as the null-hypothesis is best understood through an example: The use of reading workbook "A" during the year prior to first grade will not significantly effect an increase in the number of children who read before entering first grade. The ensuing research design should test the degree of significance that such a workbook has for a representative group of boys and girls on early reading. The word "significance" has precise statistical meaning.

The second art: heightening the visibility of the variable(s) being studied. We know that to heighten the effect of a workbook we could seek to eliminate the use of all other printed materials. This would surely heighten the effect of the workbook. Notice that the world would not go by as before, however. The third art, which we are coming to shortly, is deemed a folly instead. A more realistic way to heighten the effect of the workbook may be to ensure that the workbook is used a certain number of minutes each day and that no other workbooks are used with it.

The third art: fitting the design to the setting of the study. A major portion of this art is the ability to design the study so that the world may go on as it always has. If the problem is to discover whether or not a particular workbook promotes early reading, would it be possible to compare children who have not used the workbook with an equal number of similar children who have used it, without changing the world which encompasses these children? It is possible to compare the progress of these children after the time in question has passed if it is possible to secure (or ensure beforehand) a large enough group of children who have used (or will use) the workbook. The group should be large enough so that the effect of such special factors as the skill of one particular teacher is minimized. The next step is to match this group with another similar to it in all the ways that may make a difference except that one. This new group has not been exposed to the workbook.

The fourth art: relating the experimental effect to the experimental variable, and the variable to the effect. This art is based on judicious appraisal and common sense. Do not be faint-hearted when applying this to research design.

The critical element in this art is to apply laws of evidence before stating that one factor is related or is not related to another. Be sure that the evidence which will be acceptable and the data which will not be regarded as evidence have been thoroughly considered and written into the research design. To agree beforehand as to the rules of evidence to accept before seeking to determine whether an event is related to another event requires more than a statement of the rules of evidence, confidence levels, and analytical procedures to be used. A single philosophical position should be consistently maintained if not spelled out.

The fifth art: eliminating contamination. Contamination is difficult to rule out of any research. As we have mentioned earlier, reading is the end result of many miracles, or obversely, non-reading is the result of many tragedies. Good research design must seek to minimize the effect of influences other than those being studied. In the example of the workbook's effects on early reading, contamination may take place when the group using the workbook has an unusually large number of children unfamiliar with the workbook enter the group during the time under study. Such an event can be controlled if the design spells out a means for controlling the event. The law of large numbers may be the control used. If the number of children is representative enough (large enough and sampled randomly from a representative group) then such an event would not likely be a significant factor.

The sixth art: providing for efficient, effective, and economical procedures. Of all the arts perhaps this is the one best explained by its name. Two ideas, however, may not be immediately apparent.

First, in some cases the most economical procedure may entail the expenditure of more funds than may be thought necessary. It is helpful to think in terms of an input-output model here. If x inputs (dollars, for instance) yield y outputs (pieces of vital information about reading, for example) it is possible to conceive of a situation where x + 1 dollars of input may yield y + 20 pieces of vital information. The additional dollar may be the investment needed to get one more variable onto a questionnaire. This one variable, another question perhaps, may serve to provide twenty more pieces of information when related to the other variables that were purchased with the x dollars.

Second, a worthy distinction is made between "efficient" and "effective." In brief, "efficient" means the degree to which the goals of the investigator are met. "Effective" means the degree to which the goals of the educational enterprise are met.

The seventh art: maintaining realism throughout. A recent trend in educational training has been toward more realism. Simulation is not enough. We put our student teachers in the internship; we put our prospective principals in the assistant principal position. In reading research, why should we give a child a gumdrop for recognizing an initial consonant sound when he will not get a gumdrop if he recognizes an initial consonant sound while reading on his own?

Summary

When we seek the optimal blending of the seven lively arts, we are more likely to achieve a harmonious research design worthy of the educational theatre. By keeping these seven factors in mind during the design stage of our significant, limited study in reading we will achieve truly meaningful results, but only if we use with consistency the key words which have been carefully defined, and relate our study to the larger picture of reading.

May the muses be proud as they look down on us, for we seek to bring some artistry to the science of research design for significant, limited studies in reading.

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4. Selecting the Research Design for Problems and Purposes

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A NUMBER OF TYPES of research plans are appropriate to different problems in the area of reading. It is essential that the proper choice be made in designing a new investigation. Brief reference will be made to several types of research in the first part of this paper. Then levels of precision will be suggested before selection is discussed.

Types of Research

Although experimental research appears to be the preference of most reading researchers, it is extremely important to be aware of other types to be sure that the design is appropriate to the problem.

Historical research is an inquiry into past events to determine what has happened. It involves the location of original or primary sources, critical analysis of each, and the interpretation or interrelation of the mass of data collected. The major purpose of historical research is to clarify the present and predict the future.

Another type of research is *philosophical*. This type calls for the investigator to handle ideas in a logical order. For example, the concept of reading is usually a philosophical problem, based on a logical analysis of observed behavior. Any study is guided by the investigator's concept of the components of reading whether implicitly or explicitly stated.

A third type of research may be called *survey*. This type is characterized by the determination of the present status of any group or individual in relation to any aspect of reading. In all new fields of scientific investigation the survey type of research is essential in determining the problems on which to focus. The large number of studies of this type in the field of reading reveals that a great deal has already been learned and that many more problems have been identified than can be solved in the near future. Also, the volume of survey reports characterizes the maturity of the research in reading.

A fourth type of research may be called *normative*. The purpose of studies of this type is to determine the performance of large groups of children and/or adults on any given measure of reading competence, interest or attitude. Normative investigations are essential in developing standardized tests, for example. Many of the earlier studies were of this type because norms were needed to permit interpretation of behavior on a test or scale.

Relational research, sometimes referred to as correlational because of the statistic used, attempts to determine the dependence or independence of two or more measures of one or several aspects of reading. A second common use of relational studies is to determine the association between aspects of or general measures of reading and change in other abilities. A large number of investigations have related growth in reading to growth in intelligence, for example. Results of this type of research are often misinterpreted by assigning cause-and-effect when only association has been established.

A sixth type may be called *prognostic* because the problem is to determine ways of predicting reading behavior in the future. Most of the studies of reading readiness, for example, have been made to predict the degree of success in learning to read. While school personnel are most concerned with the prediction of the reading behavior of individuals, the majority of investigations in reading has dealt with group prediction.

To deal with individuals, *case study* research was used extensively in the 1920's and 1930's. The early reports of case studies were entirely qualitative and often revealed characteristics of individuals only. Refinements of techniques have produced the structured case study which permits the investigator to examine a number of responses to a single question, test item, or rating. When replies differ markedly, they may be classified according to characteristic. For example, a number of responses of individual pupils may be classified under a heading such as "wants to learn to read." While the classification is subject to the investigator's interpretation, objectivity can be improved by having other persons judge the same materials. In addition to the analysis of responses to individual items or observations of single types of behavior, patterns of related responses may be identified. The case study approach continues to be widely used in investigations of retarded readers or others who deviate from expectation. It is a powerful technique for identifying new problems and the most promising for investigating the process of reading.

Experimental research, the eighth type identified in this paper, is most frequently used to determine the effects of some treatment applied to a group of children or adults. Campbell and Stanley *(1)* have described three types: pre-experimental, true experimental, and quasi-experimental designs. The first, pre-experimental, is essentially the status type. It involves a single individual or group of subjects given a treatment followed by measurement of results. It is then assumed that the results are due to the treatment. In some instances, two or more measures are made at intervals over time. This is a design found frequently in reading, but unfortunately it tells us little except that relative gains or losses occurred. Perhaps the gains would have occurred without any treatment or even as a result of the initial, or anticipation of the final, testing. The results of such an experimental design are of little value unless we merely wish to demonstrate that a change *can* be affected where no change has been known to occur before.

The true experimental design provides for two groups made equivalent through random assignment of subjects to groups. Usually a pre- and a post-test provides evidence of the change in the experimental group, compared to the control group, when all factors are controlled except the single treatment under study. For greater precision, additional control groups may be needed. But in educational research, exact control over all variables is impossible to achieve.

The quasi-experimental design makes use of the natural social setting of the school, for example, and controls or accounts for as many variables as possible. But the investigator who must compromise in his experimental design should be aware of the residual imperfections. Campbell and Stanley *(2)* state that for quasi-experimental designs, it is crucial that the experimenter take the weaknesses of design into account in interpreting the results. They have presented a number of such designs which will be useful in reading.

The brief mention of some common types of research in this section was given as a guide in assisting the researcher to begin the formulation of his plan. The types mentioned are not mutually exclusive because similar procedures may be common to parts of each type. Furthermore, several types may be needed in a single study.

Levels of Precision

When a new or relatively unexplored problem is posed, the investigations are usually at the exploratory level. In addition, problems previously studied may be approached with a new theory or new techniques of investigation. Research at the exploratory level is very useful in pushing back horizons of present knowledge and creating new insights. Essentially it aids in developing hypotheses which may be subjected to controlled investigation. At the exploratory level the historical, philosophic and normative types might be combined in examining a new dimension of the reading process. Or, if a particular treatment is to be applied to a group of pupils, the historic and quasi-experimental types might be chosen. Two examples are given of the values and limitations inherent in exploratory research. A school system wishes to improve reading instruction. Therefore, the investigator changes methods of teaching, materials, and the time devoted to reading instruction. Definite improvement in pupil performance results from these three planned changes, and probably from some intangible changes, such as the stimulation to teachers and pupils. The investigator has only shown that improvement *can* be made and has not identified the conditions that produced the difference. From his observations, however, he may have developed the hypothesis that the change in methods of teaching was the most important contributor. Now he is ready to test this hypothesis, keeping materials and time equivalent, rather than just attributing the change to the factor which he has hypothesized.

A second example at the exploratory level is a study of how students read for different purposes. Few investigations of this topic had been made and they had considered rate of reading only. Hence the case study approach, using introspection and retrospection, generated hypotheses which became the focus of an experimental investigation of the effects of instruction.

A second level, called *demonstration* research *(3)*, should be more precise and deal with larger numbers or more representative subjects. Generalizations should be possible from the findings, at least to the population from which the sample was taken. Replication of this research is needed before confidence can be placed in the findings.

Demonstration research may be of a variety of types. Each will rely on historical research to determine what is already known about the problem. The development of a new test may call for the normative type of research. Studies of aspects of reading readiness, for example, may be of the prognostic type. Those designed to evaluate practice will be experimental.

Demonstration research, usually using a quasi-experimental design, is essential to determine the relative effects of various treatments. Anyone designing a study would be rewarded by reading Campbell and Stanley's *(4)* descriptions of designs which are useful although they have recognized limitations.

Most experimental designs include the plan for statistical treatment of the data when they have been collected. It is essential to choose the proper statistical treatment in advance because *a priori* knowledge saves the time of the experimenter and usually insures a better study. It is unfortunate that some studies are planned with the expectation that statistics can compensate for totally inadequate initial designs or lack of care in collecting the data.

The type of problem or the purpose of the study and the number and types of previous investigations determine whether exploratory or demonstration research is appropriate.

Problems and Purposes

Usually a problem is stated in general terms. Before it can be studied, specific questions must be formulated. The nature of these questions is important in choosing a design.

An investigator may wish to determine the background of the current controversy about phonics. If his purpose is to get a general idea of the trends, he may go to secondary sources, usually prepared summaries. This exploratory study may reveal the need for more precision; then he will go to the original documents and complete an historical investigation. A classic example of historical research is the study by Smith *(5)* dealing with reading instruction in America.

Assume that an investigator wishes to explore the status of culturally deprived pupils in some parts of the United States. He may send a questionnaire to selected or unselected teachers to learn what they know about these pupils as Barton *(6)* did. However, if the researcher wishes more precise information, he will survey the status of a random sample of pupils using standardized tests and other appropriate measures.

A new test of oral reading is devised to study the growth of this ability in the elementary school. At first the investigator is concerned only with determining the norms for the population sample in another study. All pupils are tested in this exploratory normative research and the obtained results serve his purpose. However, other schools wish to use the test so it is necessary for the researcher to secure a wide unselected sample of the population, to administer the test, to determine validity and reliability, and to prepare norms. Results of such investigations usually appear in test manuals *(7)*.

Many studies have been made of the relation of intelligence to reading. Such a study, therefore, should be designed at the demonstration level and/or should explore further the relationship of specific aspects of the intelligence test to specific measures of different aspects of reading. The report by Sawyer *(8)* of patterns of the WISC which identified severely and mildly retarded readers in a particular clinic is an example. The relationship established does not imply cause and effect, although it may generate hypotheses for more precise analysis of the cause-effect relation.

While relational types of research take into account the concurrent scores on tests or rating scales, prognostic research gathers data to predict achievement in reading. Kingston's *(9)* study of first-grade readiness compared to achievement at grades 4 and 5 is an example. For such a study, data about learners are gathered at different periods of time, varying from six months to several years.

Problems of poor readers and investigations of reading process usually require the accumulation of case studies. They may be at the exploratory or demonstration levels, depending on the purpose of the investigator. Case study research may resemble the status type, the relational or may have elements of the quasi-experimental. An example of structured case study research is Squire's *(10)* report on the reactions of students to reading four kinds of literary selections.

Experimental research, usually with a quasi-experimental design, is appropriate to most all problems where instruction is being evaluated. The twenty-seven first-grade studies supported by the U.S. Office of Education are illustrations. In each, the methods of instruction had been explored previously so that each was at the demonstration level. Several of the investigators evaluated similar methods providing for replications.

Conclusion

Designing a study requires familiarity with different types and levels of research. The problem usually directs the investigator to the type of research he wishes to carry on. His purpose, together with previous knowledge in the field, helps determine the level of research to be undertaken. Time and care in designing research pay large dividends because there is little that can be done to post-facto data which are inadequate. The researcher has a solemn obligation to use his time and that of his subjects to obtain the most dependable information possible.

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5. A Comparative Study of Six Approaches for Teaching Reading to the Mentally Retarded*

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THE PRIMARY PURPOSE of this project is to compare, under controlled conditions, six different approaches for teaching reading to educable mentally retarded children. In addition, there are two secondary objectives: first, to evaluate the effectiveness of the six approaches in respect to certain subject variables; and second, to develop further an experimental "rebus" approach to teaching reading.

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*"Efficacy of Several Approaches for Teaching Reading to the Educable Mentally Retarded." A three-year research and demonstration project supported by the U. S. Office of Education under the provisions of Title III, Section 302, of Public Law 88-164.

The sample consists of experimental subjects drawn from 112 primary classes for the educable mentally retarded in Chicago and Detroit. The project is known as the Peabody-Chicago-Detroit Reading Project and the principal investigators are Richard W. Woodcock and Lloyd M. Dunn of George Peabody College for Teachers. The project began in June, 1964 and will extend until May, 1967.

The remarks to follow describe the six experimental approaches, the procedure followed in establishing the sample, the procedure for the study, and plans for analysis of data and dissemination of results.

Description of Experimental Approaches

Six different approaches for teaching reading are being evaluated and compared in the Peabody-Chicago-Detroit Reading Project. These six approaches are as follows:

1. A language-experience approach using traditional orthography (LE-TO)
2. A basal reader approach using traditional orthography (BR-TO)
3. A programed text approach using traditional orthography (PT-TO)
4. A language-experience approach using the Initial Teaching Alphabet (LE-ITA)
5. A basal reader approach using the Initial Teaching Alphabet (BR-ITA)
6. A basal reader approach using rebus symbols (REBUS)

The major similarities and differences among the six approaches are portrayed in Table 1. The vertical dimension of Table 1 projects the differences among the approaches in respect to the degree of *prestructuring*. Language-experience approaches are the least prestructured and are designed to capitalize upon the speaking vocabulary, interests and experiences of the children. Programed approaches are highly prestructured and are designed to insure that each child will be exposed to a carefully graded sequence of learning activities. Basal reader approaches are intermediate in their degree of prestructuring.

	TO	ITA	REBUS
Language Experience:	LE-TO	LE-ITA	
Basal Reader:	BR-TO	BR-ITA	REBUS
Programed Text:	PT-TO		

Table 1. The six approaches under study in the Peabody-Chicago-Detroit Reading Project

The horizontal dimension of Table 1 projects differences among the experimental approaches in respect to the symbol system used during the initial stages of reading instruction. The approaches listed as "TO" approaches (traditional orthography) are those which make use of the traditional 26-letter English alphabet. "ITA" approaches utilize the 44 sound-symbols of the Initial Teaching Alphabet developed by Sir James Pitman. The "REBUS" approach, currently undergoing development at Peabody, is a two-stage approach for teaching reading. The children are first taught to read using a vocabulary of picture-symbols (rebuses) instead of spelled words. After the child gains proficiency in reading with the picture-symbols, he begins a controlled program of phasing spelled words into the text in place of the picture-symbols. A brief description of each experimental approach is presented below.

The language-experience approach using traditional orthography (LE-TO). A language-experience approach is based upon the premise that a reading program should be highly flexible to take advantage of a child's speaking vocabulary, his current and past experiences, and his interests. This approach is characterized by "experience chart" and "self-selection" procedures in contrast to the ready-made commercial materials associated with other approaches. The LE-TO approach utilizes the traditional 26-letter alphabet. Professional texts by Herrick and Nerbovig *(5)* and by Lee and Allen *(6)* were provided as guides for each teacher to follow in conducting the language-experience approach.

The basal reader approach using traditional orthography (BR-TO). A basal reader approach is characterized by the use of a coordinated series of readers, workbooks, and teacher's manuals. Such a series provides the teacher with a complete ready-made package of instructional material for teaching reading. The Harris and Clark series *(4)* published by Macmillan was selected for use by this experimental group. The Harris and Clark series utilizes the traditional 26-letter alphabet.

The programed text approach using traditional orthography (PT-TO). A programed approach to reading instruction is based upon the belief that a child should be taken through a very carefully structured series of steps in the process of learning to read. Each child in a programed approach must actively respond at each step in the program. Following his response, the child learns immediately whether his response was correct or not. The programed materials selected for this experimental approach are those prepared by Sullivan Associates and recently published by McGraw-Hill *(8)*. This program is basically a series of programed workbooks through which each child proceeds frame-by-frame. The workbooks are supplemented by other teacher and pupil materials. The McGraw-Hill program is written in traditional orthography.

The language-experience approach using the Initial Teaching Alphabet (LE-ITA). The ITA-language-experience approach is based upon the same premise as the TO-language-experience approach described above. The only difference between the two approaches is that the LE-ITA approach utilizes the Initial Teaching Alphabet rather than TO. After the child has learned to read and write in ITA, he will make a transition to TO materials. The teachers in the LE-ITA approach were furnished the same professional references as the teachers in the LE-TO approach. In addition they received training in reading and writing ITA through the use of a self-study workbook *(9)* and in-service meetings. The LE-ITA approach makes extensive use of experience charts early in the program, and later shifts to an emphasis on reading trade books written in ITA.

The basal reader approach using the Initial Teaching Alphabet (BR-ITA). The BR-ITA approach is similar to the BR-TO approach except for the use of the Initial Teaching Alphabet. The BR-ITA approach utilizes a coordinated series of readers, workbooks and teacher's manuals. The Downing Introductory Readers *(2)* published in England and the Early-To-Read Series *(7)* published in the United States comprise the core of materials used in this approach. The Downing Readers are purported to be easier for slower children than the Early-to-Read Series, and these materials have been used first with the children in the BR-ITA classes. The Downing Series was preceded by an auditory discrimination program prepared by Downing *(1)*. The first book of the Early-to-Read Series is used while the pupils are still completing the last half of the Downing Introductory Program. From this point on, the children continue with the Early-to-Read Series.

The basal reader approach using rebuses (REBUS). An experimental edition of the "Rebus Reading Series" *(10)* has been developed for use by the REBUS experimental group. These materials consist of readers, workbooks, teacher's manuals, and supplementary materials for use by the teacher and pupils. The unique aspect of this approach is the use of rebuses as an intermediate step in learning to read. The child first learns to read using a set of picture-symbols representing words. After the child gains proficiency in reading with picture-symbols he proceeds through a transition program. During the first stage of transition, both picture-symbol and spelled words are presented simultaneously. During the second stage the spelled word is presented within a sentence context which provides strong context clues to aid in word recognition. During the third stage of transition the spelled word is presented in settings without strong context clues, thus requiring the child to use phonetic analysis and structural analysis clues, if he does not yet know the spelled word by sight. Reading instruction beyond the transition phase can continue in any traditional manner. For the purposes of this study, the experimental teachers will continue with a BR-TO type of program.

Selection of Sample

As of November, 1965, three months after the beginning of the classroom phase of the project, the sample consisted of 112 primary EMR classes. Six hundred and seven of the children enrolled in these classes are participating as experimental subjects. The distribution of classes and subjects, by approach and by location is shown in Table 2. The number of subjects in each experimental class varies from two to twelve with an average of five or six. The entire class of EMR children is not included since the aim of the project is to gather information on the results of beginning reading instruction. Those children in primary EMR classes who had not yet learned to read, or were in the very earliest stages of beginning reading, were desired as subjects. Experimental teachers were instructed at the beginning of the school year to select the children that they would normally place in their lowest reading group. Teachers were informed that if, for reasons of classroom organization, they desired to include some children in the lowest reading group who had already achieved beyond the level desired for subjects in the reading project that this would be permissible. However, data from such subjects will not be included in the analysis. As a further check, the teachers administered a word recognition test to each subject. Data from subjects who score appreciably high on this test will not be included in the analysis.

Experimental teachers volunteered for this assignment during the spring of 1965. A member of the project staff met with interested teachers and explained the project and the responsibilities of an experimental teacher. Teachers who volunteered to participate in the project were randomly assigned into the six reading approaches. There was one variation to this procedure—teachers who had any strong adverse feelings about being assigned to a particular approach were given an opportunity to indicate this. Less than one-half of the teachers indicated such aversions and these were honored by randomly assigning those teachers into the remaining five approaches. All teachers involved in the project have had at least one year of experience in teaching EMR children, since the volunteers were selected from those already teaching such classes during the 1964-65 school year.

	CHICAGO		DETROIT		TOTAL	
Approach	Classes	Ss	Classes	Ss	Classes	Ss
LE-TO	12	64	6	33	18	97
BR-TO	11	63	9	34	20	97
PT-TO	12	69	9	32	21	101
LE-ITA	9	58	5	39	14	97
BR-ITA	11	69	8	38	19	107
REBUS	12	66	8	42	20	108
TOTALS	67	389	45	218	112	607

Table 2. The Peabody-Chicago-Detroit Reading Project Sample as of Fall 1965

Procedure

The project is scheduled for three years, beginning June 1964 and extending until June 1967. During 1964-65 the project staff was engaged in specifying and organizing the instructional programs and materials associated with each of the six approaches. Additional tasks accomplished during the first year of the project included the completion of several small-scale pilot studies related to the feasibility of the rebus approach, and the selection of school districts and teachers to participate in the demonstration phase of the study. The demonstration phase began in September 1965 and will continue until June of 1967. During this two-year period each teacher will use her assigned approach and materials with all the children in her class who are at the readiness and beginning stages of learning to read.

The equivalent of three half-day inservice meetings were held early in September 1965 to assist the teachers in understanding their role as experimental teachers and in becoming better prepared to use their assigned approach. During the remainder of the project teachers meet every month or two with other teachers using the same experimental approach in that city. The purpose of these meetings is to discuss common problems facing the teachers and allow an exchange of ideas which individual teachers have found helpful.. Each teacher in the study has been provided specific information in respect to the techniques and materials which are appropriate for her to use as part of that experimental approach.

Two aspects of the instructional program will be common to all the approaches. First, there will be an extensive program of supplementary reading utilizing materials drawn from classroom and library collections, and supplemented by project acquisitions. Second, the Peabody Language Development Kit (PLDK) *(3)* is being furnished each experimental teacher. The use of this kit in the project provides a greater degree of standardization among all teachers in respect to the total language arts program. The kit is used daily with the entire class for about 30 to 40 minutes. The PLDK lessons provide activities designed to develop oral expression skills, oral receptive skills and verbal reasoning skills. No reading or writing *per se* is involved.

Analysis of Data

Periodic evaluations of pupil progress in reading and in certain other characteristics are being obtained to measure the relative effectiveness of the various approaches at intermediate points during the progress of the study. Feedback reports are obtained from the teachers once each month. These reports are of the "critical incident" type requesting the teacher to report an actual incident which illustrates their most negative experience and another incident which illustrates their most positive incident with their approach since the last report. The third part of the monthly feedback report provides information about the progress of each child in the experimental group.

The analysis of the results will have two aspects. The first of these will be an evaluation of the relative effectiveness of the six approaches *per se*. This statistical analysis will be based upon mean reading achievements of the experimental subjects in each of the six approaches at the end of a two-year period of instruction. The second aspects of the analysis will be an evaluation of the relative effectiveness of the six approaches in respect to certain subject variables, *e.g.* mental age, visual perception skill, auditory discrimination skill, sex, etc. The objective of this aspect of the analysis will be the identification of significant interaction effects between instructional approaches and subject variables.

A comprehensive final report of the project will be prepared. This report will include a thorough description of the study, the instructional programs, and results. Further dissemination of the project will be accomplished through articles in professional journals and presentations at meetings of professional organizations. A set of specifications for each of the six approaches, as administered in the demonstration project, will be available for researchers wishing to replicate one or more of the approaches.

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6. Design of Readability Research

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RESEARCHERS, as a rule, are not easily swept away by enthusiasm. But one group—made up of those studying in the area of readability—is greatly excited about the rapid advances taking place in its field. These advances promise to have profound effects on some important educational practices. The effects will range from the development of systematic and rational curricula for the teaching of reading comprehension to English composition or rhetoric.

The developments in readability are so important and are taking place so swiftly that every serious curriculum worker in these areas must keep abreast of this research. But readability research has changed so radically during the past five or ten years that anyone wishing to catch up on this research may find himself hopelessly confused by the new objectives, theory, and research techniques being discussed. The purposes of this paper are to contrast traditional and modern readability research, explain the major developments in the research objectives, theory, and methodology, and then to show how the results of this research will affect educational practices.

Traditional Readability Research

In order to understand much of what follows, it may be necessary to review briefly what readability researchers study and how they go about their work.

Basic Assumptions. Readability researchers begin by asserting that most knowledge is transmitted through language, the language serving merely as a vehicle or code for transmitting information from one person to another. They also assert that the same information can be expressed in many different ways and that the language in these expressions varies. Finally, they assert that language has measurable dimensions which can be exploited to predict and manipulate the difficulty of a passage.

Readability Prediction Formulas. Traditionally, readability researchers have sought primarily to develop formulas for predicting the difficulty of printed language. They develop their formulas by (1) measuring various characteristics of language in passages (such as the number of syllables per word, the number of syllables per sentence, etc.), (2) measuring the relative comprehension difficulties of the passages, (3) correlating the linguistic variables with the comprehension difficulties of the passages, and (4) calculating a multiple regression equation in which one or more linguistic variables are used as predictors of passage difficulty. This equation, called a readability formula, is used to predict the difficulty of a new passage simply by measuring the appropriate linguistic variables in the new passage, substituting the measurements for the unknowns in the formula, and then solving the equation to obtain the predicted difficulty of the passage. The formulas in the past have not been very accurate, having validity correlations of only about .5 to .7.

Consumer Research. Readability formulas are most often used by educators to determine if materials ar esuitable for use with the students for whom the materials are being purchased. Here the formulas are applied to samples of the materials and the results are often compared with the results obtained from applying the same analyses to competing materials. Needless to say, the results of these studies are no more accurate than the formulas.

Research Developing Style Guides. Earlier readability researchers were not much concerned about whether their formulas could be validly used as style guides. A style guide is a set of rules which tells how to alter various aspects of the language in passages in order to make the passage more or less difficult to understand. However, publishers have been well aware of the fact that readability formulas are used to evaluate their materials. Many publishers carefully adjust their materials so the materials will appear suitable for the students with whom the materials are to be used. Researchers *(9, 10)* challenged this practice and conducted experiments in which they used readability formulas to try to make passages easier to understand. The results usually showed that the changes had little effect upon the actual difficulties of the passage. Thus, the net effect of using readability formulas as style guides has been that the language in instructional materials has become increasingly choppy and stereotyped without necessarily becoming easier to understand.

Weaknesses of Traditional Readability

Research. This discussion lays bare the fundamental weaknesses of the traditional readability research. First, its object was merely to predict language difficulty. Little or no attention was paid to analyzing the psychological processes involved in comprehension. Second, formulas were built entirely by studies of the correlational type; so, while the formulas might predict difficulty, they could not be used to infer what *caused* that difficulty. Third, the research was not based on a theory of language so there was no way to be sure that a formula took into account all of the important aspects of language. Fourth, the linguistic variables that were used in the formulas were not, for the most part, rationalized in terms of linguistic or psychological theory. Hence, there was no way to develop hypotheses for improving them. In short, the problem of readability was so narrowly formulated that readability researchers were unable to draw upon growing bodies of relevant research and theory in linguistics and psychology.

Present Readability Research

Objectives. Present readability researchers are striving to understand the fundamental psychological processes involved in comprehending language so they can control, not just predict, the difficulty of language. This is not to say that modern researchers do not use correlational research methods. They do use them, but their objective is to discover the major dimensions of language. Nor does it imply that modern researchers have abandoned trying to develop more accurate readability formulas. Readability prediction formulas are being developed, but their development is viewed as an intermediate step which can be achieved prior to attaining the ultimate goal—the development of methods for controlling the difficulty of language.

Comprehension Skills and Readability. The ability to comprehend language is universally acclaimed as being among the most important skills we can possess. Yet we possess very little scientific knowledge of the psychological processes involved in comprehension. This may be largely due to the fact that we have not seen the connection between language difficulty and language comprehension skills. When a person comprehends language, he performs some sort of operations on the language. Some operations are probably more difficult than others. By exploiting this fact, modern readability researchers are determining what makes language difficult to understand. And, what has not been well understood in the past is that when we do so we are also bringing to light the details of the language comprehension process.

Linguistics in Readability Research. It should by now be obvious that modern readability researchers must be more or less expert in several areas of linguistics. But it may not be obvious why linguistics gives modern researchers advantages not available to earlier researchers. The linguist's objective is to construct comprehensive and scientifically objective descriptions of language. Further, he usually insists that his descriptions be consistent with the intuitive feel for language that native speakers possess. Consequently, a linguistic theory offers a starting point from which to construct a psychological theory of how language is comprehended. When the psychological theories are stated with sufficient detail and precision, it is usually possible to deduct that certain words, phrases, or sentences will be more difficult to comprehend than others. When such predictions are verified the theory is upheld, and when the predictions fail, a change in the theory is indicated. The advantage that this procedure gives is that a theory can be systematically built and tested. The linguistic variables that can be derived from theories verified in this way can be employed in style guides and in readability formulas without questions being raised about whether the variables measure aspects of language that actually cause difficulty.

Cloze Readability Tests. An important factor in the resurgent interest in readability was the development of the cloze readability test. Cloze readability tests can be made from any passage by replacing every fifth word in the passage with an underlined blank of a standard length. The tests are mimeographed and administered to subjects who are instructed to write in each blank the word they think was deleted. Responses which match the deleted words are scored correct *(5)*. These tests have proven to be valid measures of comprehension *(4)* and are decidedly superior to conventional multiple choice tests for measuring the comprehension difficulties of passages. Not only are they more reliable than conventional comprehension tests used for this purpose *(6)*, but they can be used to determine the difficulty of each individual word, phrase, clause, or sentence within a passage *(3)*. Further, standards have now been determined *(2)* which permit us to use cloze tests to find out if a given set of materials is suitable for a given student or group of students.

Research Strategy. Readability researchers are faced with two rather difficult research problems. First, they do not know the major dimensions of language. Second, there are so many ways of measuring language that researchers hardly know which variables to study. Actually these are closely related problems, for while there are many different aspects of language that can be measured, some of these aspects are necessarily related to each other. For example, one would expect there to be a fairly high correlation between the number of syllables and the number of letters in a word or sentence. Similarly, since every prepositional phrase contains a noun, one would expect the numbers of nouns and prepositions to be correlated. Hence, we would be led to suspect that, if these intercorrelations were taken into account, prose style would be found to vary in only a few basic dimensions. This seems to be the case. Factor analysis studies *(7, 11)* have revealed only about seven basic dimensions of prose style and, of these, only four or five seem to correlate with comprehension difficulty. But these findings are as yet unreliable. Systematic research is only now getting under way *(1)*.

However, it seems safe to predict that researchers will be able to confine their attention to only about for or five dimensions of prose style. One of the dimensions found in factor analysis studies is clearly the vocabulary dimension, a dimension about which we have already done a great deal of research. Another dimension could be called syntactic complexity. Research concerning syntactic complexity is progressing rapidly. But in the remaining dimensions, progress will probably be much slower. It is not at all clear what aspects of prose style these dimensions represent, so they will first have to be identified before we can find out how they affect comprehension.

Practical Applications

We are not struck by the full force of the changes that have taken place in readability research until we realize the increased range of practical applications for readability research. We will begin by enumerating some of the more familiar and immediately attainable applications.

New Readability Formulas. One of the first outcomes of modern readability research was the development of highly valid readability formulas. While the earlier formulas had validity correlations of only about .50 to .70, the new formulas have validity correlations higher than .93 *(3, 8)*. However, these formulas are not apt to be published widely, for they were calculated by the older multiple correlation techniques. Formulas of this kind yield only a single difficulty score for a passage, ignoring the fact that the difficulty of a passage results from several factors of prose style. Research is presently under way *(1)* to develop readability formulas which, in addition to being highly accurate, will yield several difficulty scores for the same passage—one score for each factor of prose style related to comprehension difficulty.

The new formulas will be very complex—too complex to be used by personnel in schools. Earlier researchers tried to make readability formulas simple enough for teachers to use, but teachers seldom did. When the formulas were used, as often as not, they were misapplied as style guides. The new formulas will incorporate highly sophisticated linguistic variables and complex calculations. But in spite of their complexity, the formulas will be practical for use by schools because the entire analyses are being designed to be carried out by computers. A small but highly skilled staff can easily and economically analyze all the instructional material published each year and routinely report the results. These new formulas will probably be ready for use in about three years.

Style Guides and Curriculum Content. A second result of modern readability research will be the development of style guides. Developing the style guides will entail a great deal of work. But the reward will more than justify the effort, for the results will improve curricula in both reading comprehension and English composition. The style guides will permit us to sequence reading materials in such a way that students are given systematic training in understanding each of the factors of language influencing reading comprehension. The style guides will also constitute a clear statement of a major portion of the content we try to teach in English composition. One of the principle objectives of courses in English composition is to teach students to write clearly and understandably. The rules of a style guide specify many of the rules by which this is accomplished.

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7. Research Design and the Cloze Procedure

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IN 1953 WILSON TAYLOR devised a technique for measuring the effectiveness of communication which he called the "cloze procedure." The term "cloze" was coined from the *Gestalt* concept of closure, a tendency to form a complete whole by filling in gaps in a structure. To construct a cloze test or exercise, words are deleted in some mechanical fashion from a message and underlined blank spaces are substituted in the place of the missing words. A respondent is instructed to guess the words which were deleted upon the basis of his understanding of the remaining context. As these gaps are filled in, closure is attained.

When the writer read a paper on this technique to the National Reading Conference in 1958 *(4)*, only about 9 studies on the cloze procedure had been carried out. Since that time there has been a proliferation of research utilizing this technique. In a recent survey of research *(5)* conducted in 1964, the writer located some 44 studies which have used this device.

Researchers in the field of reading have used the cloze procedure as a measuring instrument and as a teaching device. As a measuring instrument, it has been used to measure (1) readability of materials, (2) general reading skill, (3) comprehension of specific passages, (4) amount learned through reading, and (5) general verbal abilities. As a teaching device, it has been studied as (1) reading improvement exercise material and (2) programed learning material.

The purpose of this paper is to consider two approaches to the improvement of research design in studies utilizing the cloze procedure on topics related to reading.

Reading Gain Design

The term "reading gain" is used to designate the amount of information learned through the "process" of reading as contrasted with the amount known after reading. Comprehension is generally measured as a final "product" by having a respondent answer questions after reading a passage. Different respondents will approach a given passage with varying amounts of previous knowledge about the material. Therefore, two individuals might make the same comprehension score although one might have learned a great deal more than the other through the reading process itself. The study of reading gain and variables related to it is a relatively unexplored topic in the psychology of reading.

In order to measure reading gain, the following design has been used: a pre-reading test is given to measure previous knowledge about a particular passage, the reader then reads the passage (perhaps a few days later to reduce order effects), a post-reading test is given to measure knowledge after reading, and the difference is subtracted between pre- and post-reading test scores for the same individual.

The cloze procedure is ideally suited for the construction of equivalent forms of two tests covering the same passage. (Of course the equivalence of the forms must be determined in advance.) Studies by Taylor *(9)* and Rankin *(4)* have shown that highly significant differences between pre-reading and post-reading cloze tests can be obtained. Inasmuch as both pre- and post-reading cloze tests correlate highly with multiple-cloze tests of knowledge of the passage and with standardized reading tests, it might be inferred that a reading gain score between pre- and post-cloze tests is a valid measure of learning through reading. Unfortunately, matters are not so simple. The writer has found that although both pre- and post-cloze tests are valid measures of reading comprehension, the gain scores are not related to a standardized measure of reading ability. This finding may be explained in one of two ways. It may be that reading gain is simply a different phenomenon than that which is measured by other reading tests. On the other hand, it may be that the method of measuring gain is at fault. A recent development—a new technique for measuring gain—points to a deficiency in method. Only when a suitable method is used can the first possibility be studied.

In penetrating analysis of methods of measuring gain, Manning and DuBois *(3)* have concluded that "crude gain" measurements (*i.e.*, the simple difference between pre- and post-measurements) are poor measures of improvement. Their use assumes that both pre- and post-measurements be expressed in equal interval scales and they are influenced by regression effects. In a survey of research on correlates of crude gain, the authors found such research has yielded mainly negative findings.

To replace "crude gains," Manning and DuBois have devised a technique known as "residual gain" which has none of the limitations of the former technique. Residual gain is the deviation of the post-test score from the post-test score that is predicted from the pre-test score. In other words, it is a deviation of final scores from the regression line of final on initial scores. In effect, it permits the measure of gain with subjects having been equated statistically on the basis of the pre-test. The z-score formula for residual gain is as follows:

$$\text{Residual gain} = z_2 - r_{12}\, z_1$$

where z_2 represents the post-test score in z-score form, r_{12} in the correlation between pre- and post-tests, and z_1 represents the pre-test score in z-score form.

The "residual gain" technique has been shown by Rankin and Tracy *(6)* and Tracy and Rankin *(10)* to be a valuable tool for the reading teacher and researcher. It has never been applied to the study of reading gain as measured by the cloze procedure. The use of "residual gain" in the reading gain design may open a new and fruitful area of research in reading. The cloze procedure is a convenient measuring device for this design.

Teaching Device Design

Two types of design have been used to study the cloze procedure as a teaching device. The first design is the conventional experimental group-control group design in which the experimental group practices on cloze exercises and an equated control group does not practice with these materials. The second design is a programed learning approach in which a program is constructed using the cloze procedure and the pupils' responses to frames are analyzed according to criteria for a good program.

Experimental investigations using control and experimental groups have been conducted by Bloomer *(1)*, Friedman *(2)*, and Schneyer *(8)*. Of these three studies only Bloomer reported significant differences in favor of the experimental group. Unfortunately, these findings are subject to question since Bloomer's control group was a significantly superior group of readers to begin with and his experimental group consisted of volunteers while his control group did not consist of volunteers. Therefore, his findings could be the result of uncontrolled regression and motivational variables. Friedman and Schneyer used better designs but obtained negative findings.

Despite these outcomes, the writer firmly believes that the cloze procedure has real potentialities as a teaching device. As Schneyer *(8)* has pointed out, the very nature of the skills required to fill in the precise word missing from each blank is such that practice on such materials should result in improvement. He suggests that improvement might be obtained if pupils were required to verbalize reasons for the appropriate response. This modification of research design might result in findings favorable to the cloze procedure as a teaching device.

Roossinck's *(7)* study using the cloze procedure as a device for constructing a program with immediate reinforcement of each response points to interesting possibilities for use of this technique in teaching reading. She analyzed her results in terms of *(1)* percentage of correct responses, *(2)* difficulty of individual frames, and *(3)* effectiveness of prompts on comprehension. After initial trials and revisions a program was developed which yielded a high rate of accurate responses. Unfortunately, she did not evaluate the effectiveness of the program with a controlled experiment. The cloze procedure seems well adapted for the construction of self-teaching programs. However, once such a program is constructed and has met all the criteria of good programing, it must still prove itself as an effective teaching device. Much well controlled research is needed along these lines.

The cloze procedure is a powerful tool for research in reading. Improved designs for measuring cloze test validity have been used by Frank Greene at Syracuse University. Careful studies on its use as a measure of readability have been carried out at the University of California by John Bormuth. It is through careful research that the full potentialities of the cloze procedure can be realized.

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8. A New Direction for Reading Research

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THE TIME HAS come for a new direction in curriculum research. This new direction must be aimed at bringing an end to the conservative aspects of curriculum change—aspects that have left us with a twenty year lag between the results of research and the implementation of those results in public school programs. National attention which has caused this new direction demands that curricula must be as flexible, as dynamic, as susceptible to change as the society it serves; curricula revision must keep abreast of research.

Educators have been reluctant to spend any part of their slim budgets for educational change if they are not assured of one-hundred-percent satisfaction. Educational mistakes are too costly in terms of the limited school budget, and the product to be developed from our educational system—our children. The sudden influx of federal monies to bring about educational research and curriculum changes has left many old-guard conservatives open-mouthed at the need for rapid decision making and immediate curriculum implementation. These conservatives have cautioned us about the risks of hasty action at a time when action is imperative. Today we need combinations of curriculum specialists and researchers to direct change and to ensure proper implementation.

Not only is there a need for curriculum planning to keep pace with societal change, there is a need to have constant curriculum evaluation to assess the results of the changes. The need for research to examine critically our direction of change is undeniable. And for a literate society such as ours this is particularly true in research in reading. The stark realization of adequate research design to determine reading progress must be realistically met, in terms not only of the kind of research, but in the design and the persons who conduct it. Fattu cited in 1959 *(1)*:

> Much educational research has been done by persons who have devoted relatively little of their lives to research. This may be contrasted with other areas, where the typical research worker devotes most of his life to the discovery of new principles. The techniques used in educational studies are frequently inadequate or even inappropriate. Data collection often begins before the questions being studied are defined. There is still too much tendency to seek global answers to complex questions such as "Is teaching by television effective?" There are too many inadequate studies whose only defense is that this was the best that could be done under the circumstances. Many educational studies are still of temporary local values only, or even inconclusive and contradictory because the problems studied, the questions asked, the data and techniques . . . are inadequate.
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> The amateur has ceased to play a significant role in the development of physical and biological sciences. If educational research is to advance as rapidly as the demands of the times require, the role of the amateur must diminish. . . .

If we accept this position, and it seems feasible, we are confronted with a dichotomous situation. There is a need for professional educators, reading specialists, etc., to improve reading progress through research, but we are cautioned to rely more on professional researchers. Unfortunately, not all researchers are reading specialists, nor are all reading specialists competent researchers. It would appear, then, if we are to move in the proper direction, we must give recognition to trends in a technical, specialized society. No one individual can comprehend all the complexities of the production of a modern automobile. Rather, it is an interdependence upon highly specialized skills to manufacture the finished product. Perhaps the same interdependence is needed in reading research, an interdependence which may produce the researcher-reading specialist combination we need.

But if we are to accept the position of interdependence, upon whom shall we as teachers of reading be dependent? If we recognize that rapid decision-making and curriculum changes are being made, which tools shall we utilize? How shall research be designed which will include all the variables to be considered in the teaching of reading?

Let us consider the question of the

design of research in reading. The foundation of research is a curiosity about the effect of one or more of the variables associated with reading. This curiosity will eventually evolve to the level of question formulation. When our curiosity has reached this point we are at a crucial point in our research evolution. If we are capable of clearly defining our question, we are now in a position to state our hypothesis. If the question and hypothesis are poorly defined, the end result of our research will not lend to objective analysis of data. This leads to a second consideration in curriculum design. This is consideration of the numerous variables which must be controlled. Since there are many factors to be considered, such as the "Hawthorne effect," research setting, goals or objectives, motivational factors, pupil personality, age, sex, IQ, and research instruments to be utilized, it becomes clear that the currently used univariate design, or control of one variable, must give way to the use of a multivariate design.

Once we have clearly defined our hypothesis in terms of the possible variables involved, we are ready to answer the question about interdependence. At this point the reading specialist who has developed his hypothesis must rely on those best equipped to test it—the professional researcher or statistician.

The role of the competent statistician becomes indispensable at this stage. While each individual must certainly develop a sensitivity toward the potential and limitations of the field of statistics, the kinds of treatments which are appropriate to a specific design are highly specialized, and require the services of a specialist in this area. Factors we had not previously considered as possible variables are suddenly brought into focus. The validity and reliability of our research instruments are carefully scrutinized, and possible suggestions for change made. These careful evaluations by our statistician specialists serve an invaluable purpose. His most important role, however, will be his specialized ability to indicate the design needed to yield the results desired.

Although the reading specialist has the responsibility for developing hypotheses (ideas to be tested) the professional statistician gives help in the research design and in the control of variables. Help must also be obtained from another source—the electronic calculator. With data collection completed there is the overwhelming task of statistical treatment. In the past the laborious task of computational analysis has forced the professional educator to spend evenings and weekends in statistical computation. Little or no released time has been awarded to complete this last and very vital step. With the assistance of electronic calculation, *more* information can be treated in *shorter* periods of time. The use of electronic equipment not only reduces the time involved in statistical analysis, but it also makes possible more complex and sophisticated research designs. It is now possible to approach reading research multivariately instead of univariately.

Educators recognize this potential of the calculator and modern data processing procedures. In the past large numbers of studies have centered around the traditional univariate experimental sign, *viz.*, comparing two groups receiving different treatments to demonstrate with finality that the treatment applied to the experimental group is statistically significant compared with other instructional procedures. The traditional univariate experimental design was valuable for physical scientists, but lacked the impact badly needed in education. Research in education was locked within the confines of univariate design because of time and computation problems, problems which made it necessary to deal with the aspects of reading in a gross fashion. Numerous reading experts have clearly indicated that reading success or difficulties are multi-dimensional, or multivariate, not univariate by nature.

More complex research models which would encompass the many necessary variables of human behavior and environment were either not available or too time-consuming for hand computation. The development of multivariate statistical methods and modern data processing procedures now opens flood-gates for potential research in keeping with our present needs. Therefore we must establish direct lines of communication with those computer specialists who can properly program the data we gather.

Computer programs are now available for testing existing differences among almost any number of groups on multiple criteria. Well designed programs ought to produce invaluable information on the relationship of family background, vision, hearing, sibling relations, parental relations, pedagogical procedures, physical health, socio-economic factors, ethnic groups, personality patterns, etc., to reading. We are now restricted only by our abilities to conceptualize the many variables of behavior which could influence the child's reading success, or by the lack of reliable instruments to measure the variable.

The new direction for research in reading demands that we regard contributions from these three sources: the reading specialist, the professional statistician, and electronic computational devices. The urgent need for more than a functionally literate society is reflected in the federal funds which have been available for the improvement of reading instruction in our schools. Such improvement in the form of curriculum change must be based upon an improvement of the *quality* of research done as well as an increase in the quantity. The quality of research must come from the reading specialist who recognizes the problems of reading instruction, and from the statistician who is able to construct an appropriate design for these problems. The quantity, in part, rests upon our use of the products of our technological society. The combination of these three sources, the interdependent, cooperative action among all three should yield results which will give us a better foundation for reading instruction.

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H. MULTI-DISCIPLINARY ASPECTS OF READING

1. The Psychology of Learning to Read

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THE CRITICAL WORDS in the title of my article are *the psychology of learning*. The principles of learning are the same whether we are talking of learning to read and reading to learn, learning the mechanics of arithmetic and the facts of history, or even learning to perform a physical feat in gym class.

We must recognize that learning is work, and the work of learning is done only when an individual is motivated to learn. We would be less than fair to our students if we deprived them of the need and opportunity to work. Skillfull teaching is the skillful utilization of each child's time and energy for the production of socially worth-while learnings.

The fact that effective learning requires hard work does not mean that effective learning must be unpleasant. Actually, the opposite is true. Typically we find that our effortful activities are our most rewarding and pleasurable activities. Football, tennis, mountain climbing, bridge, and chess require of their ardent participants tremendous mental or physical effort. In general, our enthusiasm for these and for other such activities grows in proportion to the effort that we expend in their pursuit.

And so it is with learning. Learning done in the spirit of excitement—learning done in the reaching for worthwhile goals—is both effortful and intensely satisfying. The only major difference between work that is fun and work that is dull is the presence of attractive goals. It is the promised *reward* that is crucial, not the size of the physical and mental price that must be paid.

With this introduction, let's examine the nature of work—both mental work and the kind of work produced by a machine. Power is required for all work. In the machine, we may use horsepower or some equivalent measure of its productive capacity. For mind work, the capacity may be stated roughly in mental-age units and in the special talents and background experiences of the individual.

In the working machine, we direct the available power through gearing and special attachments to shape or change certain raw materials into finished-work products. In directing human learning, we interpose problems between the child and the goals toward which he strives. Fine learnings, we hope, will be the finished product. In both machine production and mind-work production, time is an element to be considered. Effective learning is dependent on both the total time spent on the learning task and the efficiency with which each minute is used for learning.

An essential element in both machine and human-work production is the energizing source. Both the electric motor and the human mind stand idle until furnished with energy. For human learning, motivation is the energizer. The mind of child or man produces no learning until energized by motivation.

Motivational energy is a complex thing, but every human has an ample supply of it. Thus, we need not create motivational energy in the healthy human child; we must merely structure situations in which the already available energy is used for learning those things that society deems desirable.

Much of human motivational energy is derived from human biology. To survive and produce new generations the biological needs for water, food, air, and sex must be strong and demanding. Our biological needs are only slightly different from those of animals. But there is one great group of needs which are distinctly human. Children as well as adults have strong needs for self-esteem, the esteem of others, security, and new experiences. In fact these human needs energize the greatest portion of human learning. Obviously, they are the source of energy for most of the learning that is accomplished in our classrooms. And these so-called psychological needs possess tremendously strong energy. One of the reasons for their great strength is that they grow more powerful with use. Whereas hunger for food is soon satisfied and thirst for drink is easily quenched, need for self-esteem and the esteem of others is never satiated. Instead, the individual's hunger and thirst for esteem are intensified by feeding.

As we examine the nature of motivational energy, we recognize that if we fail to direct his energy toward producing socially desirable work products, the child will somehow find a use for his energy. He will produce *some* type of work product. Whether we direct him toward socially desirable goals, he will learn. And if we fail to give proper direction, society is likely to be harmed rather than aided by the results of his learnings.

The way in which human motivational energy may be used to produce useful learning products is analagous to the way in which the power of a Caterpillar may be directed toward moving earth for constructing a dam or a roadway. Let us examine here how the skilled operator uses this machine to produce work products. One factor is of particular importance. The maximum amount of work is produced only when the potential of the machine is fully utilized. In human learning, also, the greatest learning is achieved when the problems to be solved tax the abilities of the learner. However, with both the machine and the human learner, if the problems are too great for the equipment that is available, production ceases.

Let us not carry too far these analogies of the soulless, unthinking, unfeeling machine and the thinking, feeling, blood-and-flesh human child. A child, unlike a machine, can take over guidance of his own learning and can profit from his successes and his failures. But the fact remains that all learning is work, and that the task of the teacher is to use the motivational energy and the talents of the child to produce quality work products.

In human learning, production is greatest when the child must solve challenging problems that stand between him and the various goals that he finds attractive. Obstacles enhance the attractiveness of a goal so long as the resistance is not so great as to make the goal appear to be an impossible one. Challenge, then, increases learning if the learner can retain hope that through effort he will attain the goal. Thus the task of the teacher is to interpose appropriate problems rather than to seek to remove all problems.

The obstacles to the goal—the soil to be moved by the Caterpillar or the problems to be solved by the child—are essential to the production of work. In the case of the machine, we merely turn appropriate levers to point it toward its goal and to identify the work that it is to do. In the case of the child, a more subtle type of manipulation is required.

For immediate goals the child seeks words of praise, good grades, expressions of esteem from fellow students and teachers and parents, and the satisfaction of his curiosities. During what we frequently call the assignment, the teacher helps the child to identify specific tasks that must be accomplished in order to attain a goal the child is seeking.

We see to it that, as the child strives toward goals, he reads, listens, asks, observes, and thinks. We make it necessary that he strive actively. Notice that reading, with which we are most concerned here, is done in the effective learning situtation as a means for reaching goals. Learning to read can occur only as a production of *mind at work*. We never assign pages to be read but rather we offer reading as a pathway to things important to the reader. Remember also that, since the abilities and interests of each child vary from those of every other child in his classroom, each child must encounter somewhat different-sized problems and, perhaps, strive toward somewhat different goals. But in all cases the size of the problem must be such that it is solvable as well as challenging. For each child the goal must be seen as attainable.

In human motivation the most important word is *hope*. A child must believe that his efforts will lead him closer to his goals. He must believe that with effort his goals will be reached and, having been reached, they will be found satisfying. With hope, no effort is too great; without it—with hopelessness—any effort is too much.

2. Responsibilities of a School Psychologist in Reading-Disability Cases

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A SCHOOL PSYCHOLOGIST is responsible for the psychoeducational evaluation of the problems of learning and teaching in schools. He may be concerned with a particular child who is a disabled reader and for whom information is desired by those responsible for remediating the child's disability. Or, he may be concerned with the development of programs for the prevention of learning disabilities among larger numbers of children.

Psychoeducational evaluation, broadly conceived, includes the use of psychological theory and technique in the analysis of educational goals, the processes of teaching and learning, the social system of the classroom and school, and the learner and teacher. Psychoeducational assessment may, or may not, include the use of psychometric techniques such as the Stanford-Binet, the WISC, or the Metropolitan. It may, or may not, include reliance on projective techniques. Psychoeducational assessment will include, however, more than the individual child as the focus of evaluation.

Traditionally, the school psychologist's role in psychoeducational evaluation has been limited to an analysis of the learner. The analysis has tended to be based on a framework of theory and data from the literature of psychopathology and intellectual deficiency. As a result, typical questions asked of a school psychologist include: What is wrong with this child that he does not learn the way he should? And is he emotionally disturbed, brain-damaged, or retarded? These questions imply that the reasons for breakdowns in teaching-learning situations typically reside within the individual learner. These questions carry the further implication that there is an extra-educational treatment that is more appropriate than the regular classroom or that extra-educational goals may be more suitable for this particular non-learner than educational goals. It may well be that for some children these extra-educational treatments and goals are necessary. Undoubtedly some children can be appropriately treated medically or psychiatrically without changing the educational milieu. For the vast majority, however, the search for relief outside the educational system is not profitable. A review of those factors associated with reading disability, for example, reveals few clues suggesting that models other than educational ones are fruitful in remediating poor reading skills.

Therefore, this author contends that the school psychologist's attention should be directed toward the developing theory of psychoeducational assessment which subsumes the theories of psychopathology. In this theory he analyzes programs and systems as well as individuals. He assumes that learning-teaching disability may be the result of factors other than the learner's own deficiencies. He recognizes the value of theories of pathology but only as one of a number of theories which may be helpful in educational planning.

Furthermore, psychoeducational assessment in this frame of reference means that educational goals take precedence over any other set of goals. The school psychologist becomes an educational engineer concerned with the design of teaching-learning situations for groups as well as individuals. Appropriate questions for the school psychologist become: What are the components of the educational system which contribute to learning disability? What conditions are necessary for insuring progress toward appropriate educational goals for groups of children? How can teaching-learning situations be monitored so that changes are accomplished earlier rather than later in individual cases of non-progress? What is the behavioral repertoire of a particular child upon which his education or re-education can be based?"

A psychoeducational theory which enables the school psychologist to translate developmental, psychometric, learning, teaching, and social-psychological theories in the service of schools and school children is needed. While such a theory is not readily available, there are a number of parameters involved which can be specified. Theories of instruction as well as learning and development must be fused. The social influences of the schools on learning must be understood. The goals of instruction must be specified.

The school psychologist has at least five responsibilities, based on the definition of psychoeducational evaluation presented earlier, which may contribute to such a theory:

1. Evaluating and doing research on educational plans and innovations;
2. Translating and applying psychological theory;
3. Diagnosing in relation to instructional goals;
4. Designing examples of remedial and/or therapeutic lessons and techniques; and
5. Designing programs for the prevention or amelioration of learning disabilities.

A number of examples from the literature and the experience of school psychologists may help relate these responsibilities to reading disability and a theory of psychoeducational assessment.

Evaluation and Research

Consider first the responsibility of evaluation and research. The *sine qua non* of the psychologist is his commitment to decision making on the basis of the best data available. In psychoeducational assessment as well as dyslexia the best of the data is often not very helpful in planning programs designed to teach reading to disabled children. Therefore, the medical, psychological, and educational research underway throughout the world on learning disabilities might well be augmented by research and evaluation procedures applied to those remediation programs attempted in the schools.

In one example, a summer reading-clinic director and a school psychologist decided to evaluate the effects of perceptual-motor training as described by Newell Kephart (1960) when used as a supplement to the more routine remedial-reading procedures. Control and experimental groups were randomly selected from among the population of disabled readers. The research plan was followed, and as a result our storehouse of information is slightly increased at no expense to the children and perhaps at some real gains.

Even where research is not possible in the sense of experimental-control group, and so on, the psychologist must plan evaluative procedures for measuring progress in the individual case and among groups of children. Well-designed individual evaluation of the progress of the treatment of a non-reading 14-year-old culturally deprived juvenile delinquent was recently described in a report by Staats and Butterfield (1965). Various recording techniques were described as well as an explicit account of the reading program and the reinforcement system used to maintain the boy's attention to the reading task.

Translating and Applying Psychological Theory

The Staats and Butterfield report is also important because it is a complete account of the direct application of a bit of psychological theory to a learning problem. The report suggests that an analysis (a psychoeducational assessment) of certain classroom-learning problems using psychological principles will yield helpful techniques of instruction.

In this case, token reinforcers were used to maintain attention and work behaviors related to reading. Tokens were presented to the boy contingent upon certain responses in working with prescribed reading materials in the presence of an instructor. Tokens of three different colors and three different values ranging from 1/10 of one cent to ½ of one cent were used. As the child earned tokens, a visual plot of the number he had attained at any one point was available. The tokens could be exchanged for money or used to purchase a variety of items. This reinforcer system is an application of a motivational device studied in the laboratory and now applied in a human setting where a "real" problem exists.

Diagnosing in Relation to Instructional Goals

One of the characteristics of a theory of psychoeducational assessment is that the diagnosis must yield fruitful leads for educational planning. The diagnosis must not be tailored to a non-educational model. At least in so far as the school psychologist is concerned, it must not. Aurelia Levi, at a recent meeting of the American Orthopsychiatric Association (1964), described a wonderful example of the type of diagnosis which makes educational planning possible. An eleven-year-old boy with a learning problem was given a thorough psychological diagnosis. Instead of casting the results in pathological terms, the diagnosis was a rather complete analysis of the boy's thinking ability. As a result the boy received tutorial treatment built on educational goals. Treatment exercises were designed to teach categorization, the ability to shift sets, and concept formation. The treatment proceeded for one year.

Designing Examples of Remedial and/or Therapeutic Lessons and Techniques

In both cases just described there are examples of a fourth responsibility of the school psychologist in psychoeducational assessment. The task is the not-so-simple one of designing examples of remedial and/or therapeutic lessons and techniques which serve to communicate psychological data in prescriptive form. The psychologist must emphasize the relevance of his assessment in a miniature-teaching paradigm where goal, content, and technique are specified. Since school psychologists are not used to going this far with their diagnostic work, there are few examples upon which to draw. As one instance, however, students in the author's School Psychometry Practicum last semester attempted to carry out this step.

A small class of children who had been separated from beginning readers because they were not yet able to manage regular first-grade reading instruction and who appeared to be immature in language development was brought to our attention. School psychometry students administered the Illinois Test of Psycholinguistic Abilities to a number of the children. Many of the children had previously been given individual intelligence tests. Specific curriculum suggestions were developed which were intended to be illustrations of activities designed to develop the language skills of the children. These suggestions were related to the most severe areas of deficiency revealed in the ITPA analysis. For example, the psychometry students suggested such things as playing "Follow the Leader" and at the same time chanting labels for the motions through which the children were proceeding or playing games in which the teacher described a word and then asked the children to name the word. Auditory decoding training was the specific goal of these activities. The point of the project was to help the teacher plan her curriculum based on a knowledge of the children's specific deficits and directed to the development of certain skills assumed to be important in language development. This project was an attempt to illustrate goal, content, and technique which matched the readiness of these children.

Designing Programs for the Prevention or Amelioration of Learning Disabilities

Designing educational programs for the prevention or amelioration of learning disabilities is probably the most important long-range goal of psychoeducational assessment. The growth of compensatory educational programs for young psychosocially deprived youngsters is probably the most popular current application of theory and research from sociological psychological, and educational sources in recent years. A project at Indiana University is similar to many which have as their goals the prevention of later learning disability. (Hodges, McCandless, Spicker, 1964). In this project five-year-old children who test between 50 and 85 on the Standford-Binet Form L-M are exposed to a year-long curriculum based on a diagnosis of learning abilities using a large battery of instruments. This project embodies all of the responsibilities of a school psychologist as enumerated in this paper—research and evaluation, application of theory, diagnosing for educational goals, designing curriculum examples, and prevention of learning disabilities.

Finally, it is the author's personal bias that schooling has too often depended on tradition and folklore to derive operational strategies. The focus on psychoeducational assessment presented in this paper is one way to narrow the gap between new theory and application. Do we not have enough information presently at hand to prevent many reading-disability cases? Are there not sufficient data available to make preschool detective work searching for possible educational deterrents profitable? Don't we have the sophistication to help young married couples provide more adequate learning environments for their children? Must we continue to test a large number of children entering school each fall, predict with fair certainty that they will fail in first-grade reading, and then proceed to fulfill our prophecy?

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3. Perception and the Cognitive Process

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IN 1964, A REPORT *(3)* was made to the International Reading Association Convention on the Vision-Motor-Perception Program (VMPP) in the Brentwood Public Schools, New York. A schematic model *(4)* from which this program derives will establish a framework from which we can, within the space alloted, discuss perception and the cognitive process.

The VMPP starts with the premise that the totality of sensory-motor experiences influenced by the affective quality of the environment will produce an inventory of logical operations which will lead to effective coping techniques for problem solving. This premise is represented by the triangles on the model. Note that the line of communication between these triangles involves a feedback circuit which affects the development of each of them. Further, the top and the middle triangles are not entirely separated from the sensori-motor experiences but rather represent the various transformations to these experiences.

The second layer of the model illustrates other relevant dimensions for the development of the logical operations and techniques for problem solving: An external and an internal environment, composed of both physical and affective components and dividing the model along the vertical axis, and a mid-line representing a dynamic function called equilibration, referring to interaction, innervation, and balance. Included in this layer are the factors of extrinsic and intrinsic motivation.

Perception and cognition, the next layer represented as the larger rectangles on the model, are here depicted as the processes which produce the transformations to the sensori-motor experiences which form the inventory of logical operations and the problem-solving techniques. There is a dotted line connecting these two rectangles because of strong arguments which consider them to be one rather than two separate processes.

The fourth layer, the curved figures, represents a number of interrelated variables which are counterparts of one another on the external and internal sides of the environment, including "body-image" and the "diversity of sensori-motor experiences" which appear to overlap both sides.

Finally, the squares and smaller rectangles on the model represent some of the essential components of what, viewed in total perspective, allowed the species, homo sapiens, to reach the present level of cognitive behavior. Again, it is the process of equilibration which, as conceptualized, determines the ecological state for any given individual.

This paper will restrict itself, then, to the area of the model bounded by the processes (or process) of perception and cognition.

The relationship between these two processes, perception and cognition, is a subject that continues to receive the attention of many men in diverse disciplines. Within each discipline the investigator approaches the subject with different frames of reference. Each has made a specific contribution to the knowledge we have of cognitive development. There is a need to organize this knowledge to serve as a resource for the educator to help answer such questions as *where*, *how*, and *what* the child can best learn in order to solve the problems posed by our culture. The educator will then be able to use this knowledge for the design of curriculum, classroom materials, and teaching techniques.

The processes of perception and cognition are major areas to which the educator is turning in his quest to individualize teaching. This paper will attempt to organize some of the current thinking concerning perception and cognition with the goal of relating their common elements within a framework from which the educator could work.

Piaget *(2)* has written extensively on the subjects of perception and cognition. He has stated that sensori-motor activity is the basis of intellectual development and that perception evolves in this total sensori-motor complex.

It is not within the scope of this paper to present the many definitions given to perception by the philosophers, psychologists, physiologists, and others who have inquired into its processes. We will be discussing a few of these viewpoints not for a rating of their value but for the implications they have toward the development of a useable rationale for curriculum.

Perception, according to Piaget *(2, 5)*, is composed of two phases. The initial or primary perception is concerned with a simple fixation of a point in space. Perceptual activity refers to the way the organism organizes the serial nature of the primary perceptions to something other than itself. Perceptual activity reflects the advanced stage of sensori-motor intelligence; primary perception, its early stage.

There are those who disagree with Piaget in his definition of perception as paraphrased above. Taylor *(8)*, for example, proposes an entirely different explanation and rejects Piaget's postulation of perception as a serially performed action. Taylor also proposes that the processes of perception and cognition are not separate and distinct but rather one and the same. The differences in these two conceptualizations require more consideration than this paper allows; Taylor's arguments are quite persuasive.

Regardless of the differences in the definition of the process, most workers in the field agree that perception is part of the total sensori-motor intelligence; and they consider perception as a developmental phenomenon.

The idea that perception is part of and evolves in sensori-motor activity is now receiving increased interest in educational circles. Active participation of the organism, however, is not a new concept for the development of perception. Poincaré, at the turn of the century, postulated that movement is what creates perception. He reinforced this idea by developing a logico-mathematical proof of his statement.

For the purpose of this paper, the importance of considering perception in relation to cognition is that each is developmental in its growth pattern and that the end-product of cognition has some dependence on the veridicality of perception. It is also assumed that the veridicality of perception is influenced by movement in the sensori-motor context. The interrelationship of sensori-motor behavior then serves to fix and confirm perceptual data and, eventually, visual perception alone assumes many of the judgments of veridicality on the basis of these previous intersensori-motor relationships.

Piaget has further stated that all intelligence exists within an intellectual structure. Cognition is the process acting on this organized structure. This process is continually changing (concomitantly with the structure) as a result of the organism's adaptation to the environment. This adaptation is conceived as a process that Piaget calls equilibration which refers to the progressive movement at every stage of development of balanced integration of the processes of assimilation and accommodation. Assimilation is the process of incorporating some part of the environment into the already existing structure, and accommodation is the process of adapting the structure to part of the environment. Piaget *(7)* holds that this constant process of equilibration ". . . reveals a remarkable continuity between cognitive functions and organic functions."

Again, a factor which is outstanding is the dynamic quality of this process of intellectual development; movement, overt and covert, appears to be the key.

Taylor *(8)* notes that Poincaré demonstrated that the concept of space-relationship could not be generated except by a being who is able to move about in his environment and *whose movements are registered by his kinesthetic sense* (my emphasis).

Since the sensori-motor stage precedes all other stages of cognitive growth, the child's ability to interact with his environment is a major factor in the development of the base from which the cognitive structure will develop.

Here a comment on development and maturation is in order. Piaget *(8)* summarizes for many when he states that "maturation simply opens up possibilities, and never is sufficient in itself to actualize these possibilities." Experiments and observations have shown the effects of sensory deprivation on the maturation of organisms—so that even maturation cannot be considered independent of movement.

Therefore, it is logical that the stages of cognitive development that Piaget describes in his paradigm are, first, where the child is involved with the movement of objects in the environment and his own manipulation of those objects and, next, in the logico-mathematical experiences where the knowledge is derived from the *action* which involves the object rather than the object itself. Piaget labels these the pre-operational and concrete-operational stages.

So far, the discussion appears to be universal; that is, it applies to all children. And this point is true: all children appear to develop their cognitive structures in the same sequence. However, there is a difference in the time when these various stages appear; this development is dependent on the environment of the child and the manner in which he is allowed to interact with that environment.

However, all children do *not* develop the same intellectual organization—either in extent or similarity of structure. We know this fact from the multitude of testing that results in differences in the standard tests of intelligence and the differences in the component scores of children who achieve the same total score. Teachers are aware of differences in the manner in which children learn.

The difference in learning has been partially accounted for by the concept of "cognitive style." The investigation and development of this concept have accelerated within the past few years. Witkin et al *(9, 10)* have devised scales based on multi-sensory and affective data which locate the child's cognitive style on a continuum from a high level of "field dependency" to a low level of "field dependency." Kagen, Moss, and Sigel *(6)* have further differentiated conceptual responses to one of two basic orientations (egocentric and stimulus-centered) and one of three formal, conceptual classes (analytic-descriptive, inferential-categorical and relational). Each extreme has its characteristics as they relate to the problem-solving ability of the child. Individuals with a high level of field dependency are more "global": they are less apt to consider component parts of the whole. Individuals with a low level of field dependency are more "analytical": they tend to score higher on tests of embedded visual figures, object assembly, block design, and picture assembly. Our system of education stresses those aspects of problem solving which require a more "analytical" approach rather than a "global" style.

The major investigators in this field have devised experiments which tend to relate the individual's cognitive style to various achievements, and through these methods they have developed scales for the measurement of cognitive style. Their results tend to indicate that cognitive style as described by Witkin and his associates is a stable personality trait. However, there are indications that intervention may be able to produce change in the child's cognitive style as measured in relation to his position in a peer group. Therefore, we can infer that an individual's personal mode of perception of the environment affects his cognitive structure since an "analytic attitude may influence the quality of many kinds of cognitive products."

A factor which appears closely aligned to Witkin's concept of cognitive style is the manner in which an individual focuses on the material in the environment which is relevant to the task and conversely how he filters out what is not relevant for his particular needs of the moment. This ability is related to the tasks inherent in the embedded visual- and auditory-figure tests. The results of these tests are highly correlated to field-dependency traits. Individuals who are field independent are less distracted by "stimuli" which interfere with the focus of the task.

Kagen, Moss, and Sigel *(6)* further note that a "possible antecedent of an analytic attitude is the ability to postulate behavior in the face of the irrelevant stimulation that tempts reactivity."

An additional component involved in the broad topic of the processes of perception and cognition is the structuring of the environment by the culture. A speck on the horizon might have indicated a bison to the Indians hunting on the plains, but it did not indicate this animal to the colonist hunting for food while making the journey to the West. They were not able to pick out this relevancy from the surrounds.

Hochberg *(5)* discusses the interpretation of the environment by defining it as a searching activity involving two factors. First, a *perceptual-search guidance* which allows the speck on the horizon to be picked out and then a *cognitive-search guidance* which brings into play that "knowledge" which the individual has gained from his culture. This knowledge now influences his pattern of "scanning" or "searching" the environment for further information. Hochberg applies his reasoning to the specific task of reading and the effect that the knowledge of the structure of the language has on the individual's performance.

This brief discussion of perception, perceptual activity, cognition, cognitive structure, cognitive style, and culture indicates an interrelationship and interdependence of these factors. Included in this complex on the model are the entities of language and speech that we have not had the space to develop. A discussion of self-concept and of significant others has had to be omitted. It is well to note that all these factors are involved in our frantic efforts to program for the culturally "different" children in our country.

Here, then, is another reason to return to the question of *where, how*, and *what* the child can best learn in order to solve the problems posed by our culture. A question now implied is *where, how*, and *with what* does the educator *intervene* to produce the maximum effect on the child's ability to learn to solve these problems posed by our culture. The Vision-Motor-Perception Program is an attempt to answer this question within the framework presented. Curriculum, classroom materials, and techniques of instruction have been designed to allow the child to build experiences in sensori-motor perception. An evaluative procedure has been refined so that the rationale and the resultant curriculum, materials, and teaching techniques may be presented with objective referents in the near future.

It is inherent within the VMPP rationale that education can successfully intervene in the curved, square, and smaller rectangular elements of the model to effect change in the processes of perception and cognition and thereby effect change in the total structure of the child.

Another way of stating this matter is that the VMP Program has attempted to structure the educational environment to provide optimum conditions for the development, within the child, of techniques capable of coping with the problems presented by our ever expanding world.

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4. Vision and Perception in the Reading Process

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JANICE WAS FROM a good home situation where her physical and emotional needs always received care and attention. In the years prior to school entrance Janice seemed to be a child with no unusual characteristics; but when she entered first grade, she had great difficulty learning. Her teacher suspected that she had visual difficulties and recommended a professional eye examination. Janice's vision was severely impaired but correctable with glasses.

After Janice left the doctor's office on the day she received her corrective lens, she strangely called to her mother's attention the signboards along the freeway, the rear lights on the automobiles and the leaves on the trees. Although she now saw these things, she did not know what they were for she had never seen them before. Actually, these things had appeared before her eyes many times, but not in the form and dimension in which they now appeared. These were images that had never been previously transmitted to the central nervous system; consequently, there was no answer forthcoming to Janice's mental question "What are those things?" She had seen and had perceived in the broadest sense, but she had not yet learned. An understanding or meaning for these objects was dependent on additional perceptual experiences, i.e., her mother's explanation of the objects.

Although this illustration is a bit extreme, it serves to emphasize the interrelatedness and significance of vision and perception in the learning process. At the same time it exemplifies the distinctiveness of the two functions. Vision begins when light strikes the retina of the eye. The eye must then point in the direction of the light source. This movement results from a voluntary act of the brain. After aligning with the light, the eyes must adjust to the intensity of light in an effort to bring into clear focus the object to be viewed. This adjustment is an involuntary action. Now if a clear image is to be achieved by the eyes, the voluntary and involuntary movements must work together. Each eye is connected by nerves to both hemispheres of the brain, but there are no muscle connections between the eyes to accomplish this task of coordination. Therefore, the balance between the movements which enable the eyes to focus is created in the brain and controlled through the central nervous system *(1)*. Once the visual image is formed it might be said that vision ends and perception begins. The factors involved in visual perception will be discussed later.

The teacher who reviews available research may be confused as to the exact relationship between vision and reading. Based on her studies of infants, Shirley holds that by age two the use of the eyes in sight is nearly as perfect as it is at the adult level *(16)*. Doman advises parents that "children can read words when they are one year old, sentences when they are two, and whole books when they are three years old—and they love it" *(4)*. The implication is that the younger the child is when we teach him to read, the better he will read.

Given proper interpretation, the foregoing statements might be true and accurate; but contrast them with the statements that follow. Broom and others reviewed the research in this area and concluded ". . . that the accommodation-convergence reflex is not mature before age five and possibly not fixed beyond harm before age eight years" *(3)*. Breckenridge and Murphy maintain that the ability to fuse two images into one develops slowly and is not achieved by most students until the age of six or eight years. Since these skills are vital to reading success, it is not difficult to understand how one might be perplexed about the exact role of vision in reading.

The fact is that the results of hundreds of studies have failed to produce a consensus among authorities on the relation of visual defects to reading ability *(6) (14)*. There does seem to be, however, general agreement on the importance of ocular control and depth perception in the reading process *(2) (5) (9)*. According to Robinson *(13)* the most important condition for reading is eye coordination which involves depth perception, visual fusion, and lateral and vertical eye-muscle balance. These skills of eye coordination and depth perception are the very skills that some of the above-mentioned authorities suggested would not be fully developed before five years and possibly as late as eight years.

The emphasis given here to eye coordination is not intended to suggest that it is the only important visual aspect of reading. Nearsightedness (myopia), Farsightedness (hypermetropis), astigmatism, poor visual discrimination, and poor patterns of eye movements may all influence reading adversely; but these defects are more readily detected in routine eye examinations.

Observations of teaching practices in many primary classrooms prompt me to comment briefly on the eye movements of young children. When an individual reads, his eyes do not move smoothly across the page. The movement is saccadic or jerky. The average recognition span for first graders is 0.45 of a word and does not reach a complete word until eleventh grade *(18)*. This fact means that in the lower grades the eyes must fixate or stop approximately twice on each word in order to recognize it, and it is only when the eye is stopped that it can recognize letters or words. It also means that in a span of one hundred words the young reader will have to focus and refocus his eyes approximately two hundred times, a task requiring precise ocular control.

When children enter school, they have a pattern of visual functioning as a result of their years of preschool experience. Improvement of this pattern will not naturally occur as a result of experiences in reading *(9)*. Efficiency in eye movement is increased by reducing the number of fixations, the number of regressions, and the length of the fixation pause. Teachers may, indeed must, aid the child's eye-movement development by realizing that the reading of materials having an excessive number of difficult and unknown words and concepts, of words having several meanings, and of content not appropriate to the child's experiences inhibits good eye movements.

Increased efficiency of eye movements will not necessarily improve reading. The multiple skills necessary for reading success must be taught. The eyes cannot tell the mind what it shall understand, but at the same time the mind is dependent on the eyes for the visual impression it might understand.

The classroom teacher is not expected to render diagnosis of the visual problems students may have, but the teacher is in an excellent position to detect the presence of such difficulties. As was illustrated by Janice's case, many times faulty vision does not become evident until the child meets the many demands of the classroom. Thus it behooves teachers to be alert to visual problems.

Knox found in her study that children with visual difficulties project some fairly obvious symptoms which a teacher might observe. These include (1) the tendency to lose place in reading, (2) moving the head frequently when reading, (3) strained posture, (4) tension while doing close work or viewing distant objects, (5) facial contortion associated with tilting or thrusting forward of the head, and (6) excessive rubbing of the eyes (12). Regular observance of any of these patterns would be sufficient reason for the teacher to request a professional eye examination for the child. Teachers who wish to observe the eye movement of students may wish to use the "peep hole" method suggested by Tinker *(19)*.

But instruction in reading must proceed before and after detection of visual difficulties, and it must also continue for those students who have no visual problems. Such instruction must help the child to recognize and give meaning to words, and this ability involves perception as well as vision. The visual perceptual skills most important to reading seem to be directionality, good binocular vision, development of an adequate space structure, and the ability to distinguish likenesses and differences in words and forms. Development of these skills begins with the child's early movements which are of a gross nature. As development continues, the child learns to differentiate the two sides of the body and to separate his movements accordingly. This differentiation provides a basis for establishing the right-left differentiation as well as up and down and fore and aft, all of which are so important in reading. Without this sense of direction no real difference exists between b and d, m and w, or was and saw.

A sense of direction cannot be accomplished in space, however. It is constructed through a combining of visual and kinesthetic experience. As the hand does something, the eye learns to match the kinesthetic pattern with a visual pattern. Following this function the eye must learn to determine the direction of a line in space, and the hand produces the line in accordance with the direction of the line. This latter task requires good binocular vision as well as coordination of the eyes with other muscle groups.

Most children are able to locate an object in space in relation to their own body, but many are unable to locate one object in space in relation to another object in space *(11)*. The successful reader must develop this skill, for recognition of a word requires the reader to relate one letter to another to form a word. The mature reader does not have to attend to every letter of a word to recognize it. He simply distinguishes from the total symbol those parts which are sufficient to give him a clue to recognition of the total word. From the whole, pieces are seen and these are integrated into a word or form that has meaning. The word must then be related to other words in the sentence. Confusion will result if this organization does not occur. How this space structure develops is not known for certain, but it is dependent in large measure on vision, especially the accommodation-convergence reflex.

On the basis of a study involving forty boys with reading disability, Hagan, Silver, and Hersh concluded: "(1) that perception is modifiable by training and (2) that improved perception is reflected in increased reading achievement" *(10)*. Research also indicates that perceptual training increases reading readiness and reading achievement in normal students *(15) (17)*. If the slow and normal children in the regular classroom are to receive the perceptual training necessary for adequate development of reading skill, every teacher who teaches reading must be familiar with the ways and means of such training.

For the purpose of this discussion we might think of two categories of perceptual training—basic and advanced. In the advanced category we would find the many activities commonly employed in the development of word-recognition skills. This ability includes recognition of a word by an initial letter, by a familiar part, by general configuration, or by suffixes or prefixes. Children may also recognize words through context, recognizing common words in compound words or common syllables in multisyllable words and by association with known objects. Certainly reading teachers at all levels would agree on the necessity of these visual-perception skills in the reading process, but the significant fact to remember is that these skills do not develop automatically; they must be taught and learned.

Included in the category of basic perceptual training are activities designed to enhance basic motor development *(11) (8) (17)*. Proper motor development is requisite to the advanced perceptual growth previously discussed. Included in this category are activities designed to develop the previously mentioned skills of form perception, space structure, ocular control, and directionality. It is true that perhaps only a small percentage of school children are deficient in motor development, but specific training is vital to this group if they are to improve their reading ability. And most students can participate in these training activities without harm and perhaps with benefit.

Space does not permit a description of the activities that might be employed in this basic perceptual training; but I would urge all teachers, and especially primary teachers, to become acquainted with these activities. They might refer to four publications in particular: *How to Develop Your Child's Intelligence* by G. N. Getman, *Success Through Play* by Radler and Kephart, and two bulletins from the U.S. Government Printing Office entitled *Games and Self-Teaching Activities for the Classroom* and *Teachers Contribute to Child Health*.

In conclusion, it should be emphasized that vision and perception difficulties are not the cause of all reading disabilities and elimination of such problems will not guarantee success in reading. The child still must be taught to read. But vision and perception are vital factors in the reading success of all children and cannot be justifiably ignored or neglected by reading teachers.

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5. Identification of Visual Perceptual Errors in Young Children

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DESPITE THE theoretical evolution that has taken place in the field of perception during the past two centuries, no one hypothesis has been accepted as *the* answer to the questions relating to the perceptual process. How does the human organism perceive? Why do individuals differ in their perceptions of an object? Although many facets of the perceptual process remain a mystery, the increasing number of children with reading problems, in which visual perceptual errors are prominent, demands immediate attention.

Although reading requires multiple skills, adequate and accurate visual perception is a primary factor for successful performance. It is by means of visual perception that the reader is able to discriminate between like and unlike symbols, maintain constancy of letter and word patterns, relate parts of the word to the total configuration, differentiate between figure and ground elements on a written page, organize symbols spatially, and associate meaning with the printed symbol *(15)*.

Form Discrimination refers to the process of differentiation of likenesses and differences of forms according to their contours and shapes. It is possible to differentiate and separate elements of the physical world because each object is perceived as possessing a specific appearance and characteristic. In order to differentiate between these forms, the individual must make comparisons based upon his past and present sensory experiences and, then, select elements common to the several items under consideration *(26)*. From this information, the criterial attributes of the form are selected so that the object is recognized as being like "this" and not like "that." In this way, the individual constructs a plan or framework into which he can fit any perceptual situation. He uses this plan as a technique for stabilizing things within his environment.

Errors in the identification of words may result if the child fails to develop adequate form-discrimination skill. Such a child may evidence difficulty in differentiating between the letters c-e-o-a, m-n, h-n, or i-t-f since these forms contain both elements of similarity and dissimilarity. If inappropriate criterial elements are selected, the child may be unable to make highly refined discriminations and, thus, confuse such words as *cat*, *oat*, and *eat*. Since word identification also involves the association of sound with the printed symbol, auditory form-discrimination problems may add to the child's confusion. He may be unable to perceive differences between the sounds found in the short vowels, e.g., *pin*, *pen*, and *pan*, or to relate these sounds to the correct letter. Therefore, not only reading and spelling but behavioral errors may be produced by failure to discriminate between like and unlike elements in the environment.

Form constancy involves the process by which an individual stabilizes a form perceptually *(28)*. Constancy implies the perceptual skill of (1) discriminating between a particular form and other patterns, (2) selection of critical elements of that configuration, and (3) identification of that form whether viewed in a different spatial position, size, or at a later time. Once this function has been accomplished, other changes in unessential characteristics are not seen as having affected the form as a whole. The object still retains its phenomenal identity although it may be seen large at one time and small at another, brightly colored or grayed, in an upright position or tilted on edge. By means of consistent identification of a given form, the child develops recognition of the letter "c" regardless of whether it is presented in capital form or in lower case in either the initial, medial, or final position of a word. However, if constancy is not maintained, the child has no means of identifying the symbols within his environment since the stimulus-input appears to be in a constant state of change.

Figure-ground differentiation implies the on-going process which determines the separation of figure from ground regardless of whether the figure is presented on a plain or textured background or in an embedded or overlapping situation. This kind of differentiation involves the ability to select the pattern which is treated as the figure and to hold this configuration against a tendency for some other pattern to become the prime focus *(26)*. Thus, certain kinds of clues become pertinent to the separation of figure: (1) the figure having form whereas the ground is relatively formless; (2) the figure having thing-like qualities whereas the ground appears as unstructured and unformed material; (3) the figure appearing both brighter in color and closer to the observer whereas the ground extends unbroken behind the figure and is less brightly saturated *(25)*.

The ability to differentiate figure from ground enables the child to attend to relevant material on the page, separate the important figures in a picture from the background details of a house, hills, or sky, and discover the boundaries of forms within the environment. If the child is unable to isolate the figure from the ground or the relevant from the irrelevant, he may tend to focus only on details, such as the black lines dividing the workbook page, and fail to attend to the simple paragraphs contained within each box.

Part-whole relationship refers to the parts of a figure to the whole of which it is composed. Research indicates that perception of the whole form is not entirely divorced from perception of the separate parts. It is attention to the parts as related to the whole which leads to the stabilization of the configuration *(28)*. So, although the whole is more than the summation or collection of the parts, it is through observation of each part, the combining of the various aspects of the total which are not in all respects identical, that one gains an impression of the total figure. In this way, the whole configuration has a particular identity which differs from that of any of its parts; and although the parts in isolation may contain meaning per se, this meaning changes when the parts are related to the whole figure *(1)*.

The ability to comprehend meaning from the printed symbols may be affected by the child's inability to associate the separate elements of the stimulus to the larger configuration. The child may experience difficulty in attaining concepts from his reading since the meaning of a sentence is derived from a relationship between the individual words.

Spatial organization is the process of recognizing that forms having the same base are identical, versus those forms which involve reversal or rotation of base. Objects are located in space as a result of the integration of a series of visual impressions of different parts of the field. Each point of attention becomes combined to form a view not only of the configuration itself but of the pattern in relation to the total field of vision *(26)*. Comparison of the size of the object, the relative size of the retinal image of different parts of the field, texture gradiation in relation to distance, and relative brightness or clarity of color are recognized as cues used by the human animal to establish necessary spatial relationships. It is by means of such cues that the form is inferred as being near, far, left, right or as having depth and solidarity *(30)*.

If the child is unable to determine these spatial relationships, forms tend to assume an innocuous position in the environment. Certain children are unable to identify, or even recognize, a (1) backward or forward appearance, (2) left or right sidedness, or (3) up and/or down quality of the focal form. Any disturbance in the child's spatial orientation may result in confusion when attempting to discriminate between such letters as b-d, g-p-q, and m-w. Words taken out of context, too, may be perceived as reversed (e.g., *saw* for *was* and *no* for *on)* when no other cues are provided for orientation. Both reading and spelling may be affected by the reversal of letters and/or words or by the rotation of letter order. Inability to maintain spatial organization of the parts of a word in correct sequence and/or letter order of that word produces not a concept but a meaningless jumble of images.

Meaningful Interpretation implies the process of relating the visual form to its verbal symbol and the "deriving" of information from the recognized visual configuration. The relation of meaning to the visual form transpires as a result of an integration of past and present sensory data, all of which serve as a means of interpreting the meaning of the form or object in the external world *(29)*. By means of the information received from past and present sensory data and by relating and integrating this information, the perceptual process provides the basis for conceptualization, making judgments, and anticipating behavior.

Test Instruments

The perception of relationships is the primary requisite to concept attainment which, in turn, is the foundation for development of mental ability. Since the perceptual system provides the means by which information about the external world is collected and organized, it appears evident that perception, per se, is one of the most important variables determining the capability for intellectual development. It is for this reason that intelligence tests, as well as reading-readiness ability scales, rely heavily on visual perceptual items. Tasks involving form discrimination, visual-motor coordination, meaningful interpretation of visual stimuli, and spatial relations are part of tests such as the *Wechsler Intelligence Scale for Children, Pitner Non-Language Test, Chicago Non-Verbal Examination, Monroe Reading Aptitude Tests* and *Gates Reading Readiness Tests*. Test profiles, which indicate variations in performance on subtests or between the ability to deal with verbal versus performance items, may be used as an indication for further study and investigation. In general, intelligence and ability-scale profiles do not provide specific information regarding the type or degree of perceptual disturbance and/or its relationship to skill in reading.

Other apprasial techniques are available to measure the function of specific areas of visual perception. These perceptual tests can be and should be broken down into the categories or areas of functioning which they purport to measure. Instruments measuring ability to form part-whole relationships are (1) *Gestalt Completion Test (27)*, (2) *Bender Visual Motor Gestalt Test (4)*,

(3) *Picture Integration Test (8)*, and (4) the *Goldstein Scheerer Cube Test (16)*. All four of these tests evaluate the subject's ability to integrate the configuration as a whole and to perceive the "gestalt" of the pattern.

Other instruments measure visual memory of design, such as; (1) *Benton Visual Retention Test (5)*, (2) *Ellis Visual Memory Test (10)*, and the (3) *Kendall-Graham Memory for Designs Test (19)*. These tests evaluate the individual's ability to perceive relationships between the parts and the total design as well as his retention of this organization over a specified time period. It is difficult in these tests, however, to separate what role memory plays in the child's inability to organize the pattern versus perceptual deviation.

Test instruments to evaluate figure-ground disturbances include (1) *Strauss and Werner Figure-Ground Discrimination Tests (30)*, (2) Dolphin and Cruickshank test for figure-ground disturbances in cerebral-palsy children *(7)*, (3) Ghent study of developmental level and degree of difficulty encountered in separating figure from ground *(13)*, and (4) Elkind and Scott *Decentering of Perception Test* (9).

Form discrimination is a basic consideration in the design of (1) *Preschool Inventory (18)*, (2) Birch and Lefford measure of skill in discriminating forms and developmental stages of sensory functioning *(6)*, (3) Ghent investigation of the effect of orientation on identification of form *(14)*, (4) *The Minnesota Preschool Scale (17)*, and (5) *Pictorial Test of Intelligence (11)*. All of these tests evaluate the subject's ability to recognize objects of varying levels of abstraction and complexity and to discriminate between like and unlike forms.

The Weigl-Goldstein-Sheerer Color Form Sorting Test, although not truly a test of form discrimination, involves the subject's awareness and organization of elements related to form identification *(16)*. The principle of identifying and isolating form for purposes of sorting is an important factor underlying success when the child is later faced with discrimination of abstract symbols such as letters and words.

The *Constancy Effect Test*, developed by Ardis and Fraser, is one of the few attempts to measure an individual's ability to identify a pattern regardless of changes in color, size, or spatial position in the given form (3). The instrument was designed to investigate the effect of personality factors on one's ability to maintain form constancy. The results of the study indicated a relationship between personality type and either increased or reduced constancy in attending to forms within the environment.

The child's ability to organize stimuli presented in different spatial dimensions is investigated by (1) the Nelson and Bartley studies of developmental levels and ability to match two- and three-dimensional forms *(20, 21)*, (2) Milgram and Furth *Positional Reversal versus Dimensional Reversal Test (22)*, (3) *Goldstein Sheerer Stick Test (16)*, and (4) *Raven Progressive Matrices (23)*. These instruments evaluate the child's ability to identify, match, select the correct pattern, and reproduce forms presented in either two or three dimensions.

One of the most complete and standardized measures of visual perceptual performance, which provides norms for perceptual levels of children from age 3-9, is the Frostig Test. The *Frostig Developmental Test of Visual Perception (12)* includes items to appraise: (1) skill in figure-ground discrimination, (2) eye-motor coordination, (3) form constancy, (4) positions in space, and (5) spatial relationships.

Although instruments are available to evaluate the function of visual perception, many of these tests are not standardized and, thus, fail to provide an adequate population with which to compare a particular child's perceptual skill. Few of these instruments consider more than one specific area of perception, neglecting other related and important aspects of function. Yet, other than a neuro-physiological examination which might reveal some brain pathology to be the cause of perceptual dysfunction, these tests do provide some specific information about the categories of visual perceptual function. It must be remembered, however, that there is inadequate evidence available to substantiate the hypothesis that the child's performance on a paper and pencil test such as the Frostig or the Bender, which are composed of geometric or abstract configurations, can be used as a predictor of the existence and/or degree of reading disability that may be produced by any perceptual dysfunction.

Thus, the difficulty in studying perception lies not only within the vast theoretical framework but in the multiplicity of factors that may be involved in impaired performance. It becomes apparent that the perceptual disturbances noted in elementary children may not only have many causes but may act as indicators of other problems (i.e., emotional disturbance, experiential deprivation, organic involvement, or maturational lag). Lack of adequate perceptual skills may not be a causal factor in a reading disorder but rather a symptom. Paradoxically too, although visual perceptual errors may affect reading ability, a child may evidence perceptual impairment in certain areas and yet be able to read. Certain perceptual disturbances may be related to specific types of reading errors; but, on the basis of the tests presently available, perceptual dysfunction is not necessarily causally related to a reading disorder. Results of tests, however, do identify areas in which the child is experiencing difficulty in handling visual sensory data and may indicate possible areas of difficulty in the reading process. No one diagnosis or solution is possible, though, since reading is a complex process involving many factors of which visual perception is but one.

Identification of visual perceptual dysfunction is only the initial stage of the diagnostic process. It is necessary to combine and/or correlate the information derived from the perceptual tests with analysis of reading-score errors, omission or addition of word parts, confusion of similar word forms, inconsistent word recognition, and inability to follow perceptual sequences. In addition, information gleaned from the teacher's observations of how the child handles other situations involving visually oriented materials can be of value in providing insight into the nature of the problem, related symptoms, and possible causative factors. It is from an integration of information concerning variations in the child's performance that a diagnosis is derived. The diagnosis itself is only as good as its ability to provide the necessary information and/or description of the child's behavior. Too often a shop-worn label is used: one that tells little about the behavior of the child, little about the *individual* child, who may deviate as radically from the norm expectation of a given group as he does from the patterns of normalcy per se. An effective, meaningful, descriptive diagnosis, then, provides the basis for structuring the objectives and learning experiences of the remedial and/or preventive educational program. The process of evaluation is continuous—requiring continual analysis and interpretation of changes in behavior, identification of perceptual errors in the reading program, inclusion of additional learning experiences, and modification of prognosis pertaining to the visual perceptual and/or reading disorder.

In conclusion, it becomes apparent that although instruments are available for the identification of visual perceptual errors, these tests, at best, provide only a gross measure of perceptual dysfunction and, thus, afford highly unreliable results. Further, only minimal information has been compiled as to what the child responds to visually when presented with a word. The question arises as to whether the testing instruments measure skills relevant to the reading process. The need, therefore, exists for further investigation of 1) the reliability of test results as compared with observation of the child's performance and with information gleaned from other standardized instruments; 2) controlled examination of differences in reading performance between Sample A, representing those individuals who evidence visual-perception dysfunction, and Sample B, defined as a non-perceptually disturbed group; and 3) investigation of the sequence of response to a visual symbol (i.e., global configuration, recognition of letter parts, specific cues within total configuration) to establish which categories of the visual perceptual process are necessary skills for reading to occur. Thus, much remains to be done before more accurate identification of visual perceptual errors and analysis of their causal relationship, if any, to decreased reading proficiency can be made.

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6. Diagnosing Cases of Reading Disability with Suggested Neurological Impairment

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THERE EXISTS among the population of poor academic achievers a group of children of near-average intelligence or higher who experience persistent difficulty in learning to read in spite of adequate exposure to pedagogic methods which are successful in teaching the great majority of children. The identification and remediation of these learning problems present a real challenge to educators; children with such disabilities are high-risk candidates for long-term school difficulties in both academic achievement and school adjustment. Whereas achievement tests and group intelligence tests often place them in the borderline or defective intelligence categories, careful, individual mental-ability testing with appropriate clinical instruments often reveals normal intelligence or higher. In many instances, the problems presented by such youngsters are of such a complex nature that various other professionals may be involved, including the psychologist, psychiatrist, pediatrician, neurologist, and social worker.

Within the past decade there have been increasing interest and focus upon the various possible contributing factors to learning disabilities. It may be safely stated that the present state of knowledge and understanding of these problems, as well as agreement among the various disciplines involved, is far from satisfactory.

It is a matter of some considerable importance to establish the cause or causes of learning problems, including reading disabilities, as accurately as possible. For example, there is still a substantial pedagogic tradition which holds that all such academic failures are due to poor teaching. If this opinion is so, then steps need to be taken to assure that such pedagogic measures are corrected. If these learning problems are the result of intrapsychic stress, resulting from aberrent child-rearing practices and parent-child conflict, then clearly child-guidance workers have a central role to play in both treatment and prevention.

Of considerable current interest is whether minimal brain disfunction might exist in some of these children. In this context the term minimal does not refer to a necessarily minor or unimportant impairment but rather to (presumed) neurological involvement which is not readily and grossly demonstrated. The diagnostic and descriptive categories included under the term "minimal brain disfunction" refer to children of near intelligence, average, or above-average general intelligence with learning and/or certain behavior abnormalities ranging from mild to severe, which are associated, subtle, deviant functioning of the central nervous system.

These may be characterized by combinations of deficits in perception, conceptualization, language, memory, control of attention, and impulse or motor control.

These aberrations may arise from genetic variations, biological irregularities, prenatal brain insults, illness or injuries sustained during the years critical for the development and maturation of the central nervous system, or from unknown cause. During the school year varieties of special learning disabilities are the most predominant manifestations.

Thus, broadly considered and as here used under such a classification, would be included the so-called brain-injured child, the category of minimal brain damage, chronic brain disfunction, as well as primary reading disability, specific language disorder, and dyslexia.

Our interest in children with learning disabilities derives from an eight-year experience in an interdisciplinary-diagnostic clinic (Central Evaluation Clinic for Children, University of Maryland Hospital) where we have had the opportunity to study large numbers of children referred because of school failure. In this setting each child is studied thoroughly by a pediatrician, neurologist, psychologist, audiologist, and speech pathologist. Electroencephalograms are obtained routinely; psychiatric and special educational consultations are freely utilized. Working in such an interdisciplinary setting, the staff has a unique opportunity to gain first-hand experience with school problems, to exchange ideas with the several disciplines involved, and to cultivate an interdisciplinary exchange of information and ideas. It has also been possible to view in broad prospective some of the conflicting viewpoints and interpretations of the existing body of knowledge about children with various kinds of problems in school adjustment and academic achievement.

It is not an infrequent occurrence that the same child will be given diagnostic labels which are seemingly at considerable variance when studied in different clinical settings. For example, recently in Baltimore a 7-year-old boy was studied in three highly regarded centers within a period of several months. In one clinic he was called neurologically impaired with an aphasio-aphasoid central-language problem. In another he was diagnosed as schizophrenic; in the third he was called chronic brain syndrome with organic hyperkinetic-behavior disorder. The reasons for such semantic confusion and apparent difference of opinion are not difficult to discern since the child had multiple problems. Each consultant labeled the boy according to the major problem as he perceived it. Without attempting judgment about the accuracy of any of the diagnostic terms used, it does seem appropriate to ask if this single example reflects our present state of knowledge and understanding of child development and, furthermore, if we are aware that such confusion exists.

Out of their experience with large numbers of children who have severe reading problems, the staff of the evaluation clinic concurs with the school of thought which holds that there exists within the community of slow learners and poor readers a specific group which has particular difficulty in learning the conventional meaning of symbols, which condition is of constitutional and not of environmental origin and is often genetically determined. The condition is much more common in boys than in girls and may be associated with mixed laterality, delayed determination of handiness, motor awkwardness, and directionality confusion. Detailed family history frequently reveals a similar reading, speech, or language-problem disorder among near relatives.

However, since the group of children studied in the Central Evaluation Clinic for Children was a highly selected and screened population which had been referred for evaluation, it was decided to study a large number of children with reading disabilities found in one large public-school system. Accordingly, 240 children with severe reading problems which could not be remediated by supplementary pedagogic methods were studied in an experimental project in an effort to clarify the nature and characteristics of these children. This research attempted to compare the reading improvement of (a) remedial pupils who remained in the developmental-reading program, (b) remedial pupils who received corrective-reading instruction, and (c) remedial pupils who received remedial-reading therapy. The study compared the reading improvement of the three groups of pupils after one year of instruction and again one year after termination of instruction. These programs are defined as follows:

The developmental program is a program providing systematic instruction at all school levels and in all content areas for those who are developing language ability commensurate with their general capacity levels. This developmental phase is the responsibility of every teacher, affects all of the pupils, is provided for in the regular curriculum, and is a continuous ongoing process.

A corrective-reading program is for children without an associative-learning disability. The children are usually taught in small groups and special classes. Corrective reading is also taught in the classroom at times. A child may be unable to pronounce words or he may use words readily without comprehending their meanings.

Remedial-reading programs are, essentially, clinical programs for children with severe-reading difficulty who are unable to make associations between visual (printed) symbols and their experiences. Other labels for this category are specific reading disability, congenital word blindness, primary reading retardation, and developmental dyslexia. The adjective "specific" calls attention both to the circumscribed nature of the disability and to our ignorance of its cause. Specific reading disability may be defined as the failure to learn to read with normal proficiency despite conventional instruction, a culturally adequate home, proper motivation, intact senses, normal intelligence, and freedom from gross neurologic defect. Pupils with these problems demand individual and small-group instruction on a clinical basis by specially trained personnel. It is for these that the tactile and kinesthetic techniques are usually necessary.

Description and Selection of Pupils

Each of these pupils has the following characteristics in common: 1. Evidence of near-average, average, or higher-than-average intelligence as determined by the WISC; and 2. Severe reading retardation with word-recognition problems as determined by informal and standardized achievement tests.

Table I presents a picture of the average remedial reader found in the study. The pupil is a male who entered the first grade at the chronological age of 5 years, 11 months and with one sister and one brother. He has a poor reading-readiness score which indicates a delay in the initial-reading experience. He is in the 6th grade reading below the second-grade level and has repeated somewhat less than one time. He has severe word-recognition problems with a limited sight vocabulary and few word-analysis skills to unlock unknown words. His health, attendance, and discipline are satisfactory. There does not appear to be any significant Wexler subtest profile. Spelling achievement scores are below reading- and arithmetic-achievement grade levels as determined by the wide-range reading achievement test.

Sex Ratios and Maturational Factors

Most observers agree that learning problems are far more common in boys than in girls. (Table II) In fact, the study of distributions of boys and girls in homogeneously grouped classes reveals the unequal sex distribution in which more boys are in the slower-moving groups and more girls are in the faster-moving groups. (Table III) The reason commonly given for this distribution is that child-rearing practices and other social pressures centering largely about the role of the male child as the potential primary source of economic support for the family cause emotional problems which lead to his learning problems.

Benson has pointed out that physiological and maturational factors may play an equally important role since the human-male organism matures at a slower rate than does the female. Thus, she advances the hypothesis that some of the behavior disorders and learning problems among boys may be the result of stress response of an immature organism to the demands of a society which fails to make appropriate provision for this biological-age differential.

Direct methods of measuring maturational rates of the central nervous system are lacking, but it is of interest to consider systems of other organs in which more precise techniques of assessing developmental-maturational processes are available. One such system, the maturational rates of which can be readily measured accurately, is the bony skeleton. It is of interest to note that the secondary centers of ossification appear consistently later in boys than in girls and that the average difference for those centers appearing between 4 and 12 years of age amounts to 20 months. (Table IV) If such maturational difference occurs in the central nervous system, this factor would lend additional support to Benson's hypothesis that biological and physiological differences between girls and boys place the human male at a disadvantage from the readiness point of view.

It is appropriate and necessary to point out at this time that one of the major problems inherent in the identification of reading disabilities is that traditionally educators, physicians, and other professional workers concerned with the problem have relied almost exclusively upon capacity and achievement scores and standardized tests. A severely retarded reader is considered to be a pupil retarded two or more years by standardized tests. This rule-of-thumb-screening criteria can be dangerous and misleading. Standardized tests of reading achievement do not always indicate the pupils' instructional-reading levels.

In our study, reading-achievement scores compiled within a four-month period before instruction was initiated demonstrated the wide variation between standardized and informal tests. There appears to be about two years' difference between the standardized and informal evaluation. (Table V)

The picture is just as confusing concerning capacity evaluations. Most of the measuring instruments are tests that require reading, yet often they are given to students who cannot read or have not learned to read effectively. There is considerable variability between the different capacity-measuring instruments. There also does not appear to be a typical profile of Wexler's sub tests for these remedial readers. The performance section is significantly higher than the verbal section in many cases. (Table VI) The intercorrelations of these tests and the WISC for the 240 remedial readers were considerably smaller than the Wexler standardization and expectations. In fact, 20 of the 55 correlations in the study were negative. (Table VII) The factor-analysis possibly might reveal some cluster, but the present data does not indicate a specific profile.

Psychological testing suggested the possibility of an organic, physiological contributing factor in seventy of the remedial-clinic type of retarded readers. The high incidence of possible neurological disability (as inferred from psychological testing) that appears in the population of the study (29 per cent) is not typical of its distribution in the normal population.

Management and Evaluation

The 80 pupils in the remedial program were given the complete remedial program through the 1961-1962 school year. This program included appropriate pedagogical remediation, individual or group psychotherapy, and family counseling.

The 80 pupils in the corrective program received the standard corrective program at their local schools.

The 80 pupils in the regular developmental program remained in their classrooms and received no additional instruction outside of the normal developmental-reading program.

During the 1962-63 school year the pupils who have been in the remedial and corrective programs returned to their regular classroom developmental-reading program.

Reading evaluations were administered at the beginning of the study in September, 1961, at the end of the remediation period in June, 1962. They were again studied at the end of the study in June, 1963.

A Program

In an actual program in a clinic the elementary child reports to the building at 9:00 each morning and is picked up at 11:40 a.m. and returned to the regular school for the afternoon session. The parents must provide transportation. The secondary students are picked up at their regular school each day and transported to the clinic by 12:45 p.m. Classes are dismissed at 3:30 p.m., and parents make arrangements to call for their children at that time.

Seven PTA meetings are scheduled during the school year. Three meetings are conducted by the reading clinician who conducts a highly structured PTA meeting. The other four meetings are headed by a visiting teacher trained in Family-Life Discussions. The parents have an opportunity to discuss some of the things—either old or new—that have been bothering them. Here the parents see that they are not alone; other parents have similar problems; other children share personality changes. In many cases parents can help one another solve some of these pressing issues. The whole program is conducted in a non-directive, relaxed fashion and acts as a type of catharsis. The psychologist and reading clinician are there as observers and only join in as consultants when requested by the parents.

Whenever possible, the programs are so structured in the local school that the youngsters attend classes and participate in activities requiring limited reading and writing skills. This programing, of course, is much easier to do in the secondary program. However, we have found in the fourth, fifth, and sixth grades where reading is conducted in the morning that the pupils can meet success in the afternoon in some subjects that do not bear directly on the reading area of the language-arts program. Ideally, the reading specialist will work with about seven youngsters in both the morning and the afternoon sessions.

Grouping as far as instruction is concerned is very fluid. It varies with the immediate needs of the individual.

The psychological approach utilizes the tracing or VAKT (Visual, Auditory, Kinesthetic, Tactile) techniques instead of the VA used in the developmental and corrective programs.

Three pedagogical techniques are considered in the remediation of these severely retarded readers: (1) The basal and the language-experience approach using V and A, (2) The Fernald approach using VAKT in analytical breakdown, and (3) The Gillingham approach using VAKT in a synthesis attack.

For some time, every remedial pupil was exposed to one specific technique. The selection of the particular pedagogical procedure depended to a large extent on the training of the clinician and the bias of the diagnostic center. Educators embrace the philosophy of individual differences but too often accept the "one right way" of teaching reading to all retarded readers. Pupils and teachers alike have had to adjust to the one procedure instead of the teacher and the technique adjusting to the needs of the child. Too often teachers have followed one policy blindly because some authority has said, "This is the way."

Experience has demonstrated the fact that there is no magic panacea for all children. These severely retarded readers have one consistent syndrome, besides their retardation, and that is inconsistency. The clinician must select the appropriate technique through diagnostic teaching and use all sensory pathways to reinforce the weak memory patterns. The method or combination of methods that helps the child is the right method.

The program is so geared that the youngsters have a wide variety of high interest, low reading-level material with a variety of supplementary materials such as tape recorders, filmstrips, slide projectors, hand and eye coordinators, primer typewriters, and listening-parts material. During the day, a certain number of youngsters will visit with the psychologists for individual and group therapy.

Extensive studies conducted during the program have attempted to evaluate the effectiveness of remedial reading with psychotherapy in the public-school system. Unfortunately, it has been impossible to effectively control the variables for large groups of children and psychologists. The objective evidence at this time is still inconclusive. Nevertheless, many teachers are of the opinion that some therapy or assistance must be given to all severely retarded readers.

The reading teachers in the program have constant conferences either by telephone, letter, or in person with the classroom teacher to integrate and correlate the two programs. The reading teachers also meet with the psychologists to discuss how the youngsters are progressing in the program. Once a month, the entire staff meets in an evaluation program. Whenever the student is academically and psychologically prepared, he is returned to the corrective or to the developmental program. If the youngster is not meeting any success, he may be returned to the local school for further referral, study, and recommendations.

Results

The findings which pertain to the major purpose of the study are as follows: 1. At the close of the one-year instructional program and at the close of one year of follow-up, elementary pupils in the remedial group had made greater improvement in reading than had the pupils in the corrective and developmental program. The difference was statistically significant at the one-per cent level; 2. At the close of the one-year instructional program elementary pupils in the corrective group scored higher in reading achievement than did the elementary pupils in the developmental program, and the difference was statistically significant at the one-per cent level. There was no difference between the corrective and developmental groups at the end of the follow-up year; 3. At the close of the one-year instructional program, secondary-school pupils in the remedial group had made greater improvement in reading than had the pupils in the corrective and developmental program. The difference was significant at the one-per cent level; and 4. At the close of the one-year instructional program, the secondary pupils in the corrective group scored higher than did the pupils in the developmental group, and the difference was statistically significant at the one-per cent level. There was no difference between the growth of the three groups at the end of the follow-up year.

Since the reading growth of the remedial pupils taking corrective remediation during the 1961-1962 school year was limited (elementary .5 and secondary .69), it was interesting to note that the average growth of corrective pupils receiving the same remediation during the same period was elementary 1.84 and secondary 2.02. It is apparent that the average corrective pupil receiving corrective remediation made a great deal more progress than did the average remedial pupil receiving corrective instruction.

Summary

The intent of this paper is not to discuss the value of one particular pedagogical procedure over another but to stress the point that remedial readers when exposed to corrective procedures do not make really satisfactory permanent growth. These remedial pupils who have failed to progress under ordinary classroom methods must be taught not by repetition of techniques that have failed but by new ones carefully planned to overcome individual differences. It is not easy to identify these pupils. Standardized tests of achievement and capacity cannot be expected to yield accurate results for children with severe reading problems since a degree of verbal facility is necessary simply to understanding test-directions and to read the questions.

Most school systems introduce remedial-reading instruction at the third grade or later (if they have it at all). The justification may be one of economy. Of those children not reading at the end of first grade, perhaps half manage to pass muster by the end of the second grade; a few more of the remainder learn to read by standard instruction by the end of the third grade. These children are the "late bloomers," youngsters who, for unknown reasons, acquire late, but do acquire, the capacity to profit from conventional teaching. By waiting till the third grade, the school system has spared itself the cost of extra teaching for children who were going to make it on their own. This "economy," however, must be balanced against the cost to those children who, by the third grade, are deeply imprisoned in faulty learning habits, have become convinced of their ineptness, and now respond poorly to any but the most expert, individual, clinical instruction. An effective program for early identification and treatment might produce long-run savings if we take into account the cost of prolonged treatment and ultimate losses in the economic productivity of the handicapped readers.

Many Federal and state acts offer financial assistance. In Maryland's handicap laws the following statement is made:

a. The local department of education may provide a special program within the public-school system for any child whose specific learning disorder results in such impairment or dysfunction of the intellectual processes that he cannot benefit from the instructional program usually found appropriate for most children. Specific learning disorders include, for example, problems in reception, formulation, and expression of language; problems in visual perception and integration; and a specific reading disability such as strephosymbolia.

b. Wherever seven of these children who have similar learning disorders can be found, a special class may be formed and a qualified teacher may be employed.

TABLE I
SUMMARY OF DATA FOR 240 CLINICALLY RETARDED READERS

Variable	Average	Comments
Sex	Male	5 females
No. of male siblings	1.1	
No. of female siblings	1.0	
Place in family	2.3	
Age entering 1st grade	5-11	
Readiness score	37	poor—delay 6-10 months
Grade—1961	6.1	
Instructional Reading Level:		
Informal tests	1.6	
Standardized test:		
Stanford	3.8	
WRRA	3.2	
WRSA	2.5	
WRAA	4.2	
Capacity Evaluation:		
CTMM—2nd grade	90.44	
CTMM—4th grade	89.58	
WISC—Full Scale	96	
Verbal	91	
Performance	101	
Sub-Tests:		

I	8.4	PC	10.9	DS	7.3
C	9.3	PA	10.7		
A	8.3	BD	9.9		
S	9.2	OA	10.8		
V	9.1	Cod	8.7		

Variable	Average	Comments
No. of grades repeated	.78	
Attendance rating	1.5	3 point scale:
Health rating	1.3	good satisfactory poor
Discipline rating	1.4	/1 /2 /3

TABLE II
DATA SHOWING AUTHOR, YEAR OF PUBLICATION, NUMBER, AND PER CENT OF BOYS AND GIRLS REPORTED AS REMEDIAL-READING CASES

	Year Published	Number of Cases		Per Cent	
		Boys	Girls	Boys	Girls
Blanchard	1936	63	10	86	14
Young	1938	37	4	90	10
Preston	1940	72	28	72	28
Missildine	1946	25	5	83	17
McCollum					
Shapiro	1947	31	9	76	24
Axline	1947	28	9	76	24
Vorhras	1952	178	47	80	20
Johnson	1955	23	11	67	33
Fry	1959	163	39	81	19

Heilman, Arthur W. *Principles and Practices of Teaching Reading.* Columbus, Ohio: Charles E. Merrill, Inc., Chicago, 1961, p. 356.

TABLE IIIa
DISTRIBUTION OF BOYS AND GIRLS IN HOMOGENEOUS CLASSES

	High Achieving		Low Achieving	
Grade	Boys	Girls	Boys	Girls
1	198	273	233	123
2	231	300	243	135
3	213	294	240	114
4	213	291	315	105
5	198	309	213	102
6	231	321	222	144
7	339	498	516	374
8	318	384	409	252
9	216	498	336	225
10	180	288	225	72
Total	2337	3456	2952	1646

TABLE IIIb
PERCENTAGE DISTRIBUTION OF BOYS AND GIRLS

Grade	Boys	Girls	Boys	Girls
1	40	60	65	35
2	43	57	64	36
3	42	58	67	33
4	42	58	75	25
5	39	61	68	32
6	42	58	60	40
7	40	60	58	42
8	45	55	62	38
9	30	70	60	40
10	40	60	76	24
Total	40	60	64	36

TABLE IV
ONSET OF SKELETAL OSSIFICATION*

Female			Male	
Yrs.	Mos.		Yrs.	Mos.
3	11	Greater Multangular	5	7
4	1	Lesser Multangular	5	9
4	3	Navicular (Hand)	5	6
5	9	Distal Epiphysis of Ulna	6	10
10	1	Sesamoid—Adductor Pollicis	12	8
3	2	Metatarsal V-Distal Epiphysis	4	7
5	0	Calcaneus	7	5

*Nelson, W. *Textbook of Pediatrics*. Philadelphia, Penna.: Saunders, 1959.

TABLE V
ANALYSIS OF THE THREE READING EVALUATIONS EMPLOYED IN THE STUDY

Mean Reading Grade Level Scores of the WRRA, Stanford, and Informal Tests According to the Three Treatment Groups

	Elementary			Secondary		
	Remed.	Correc.	Devel.	Remed.	Correc.	Devel.
WRRA	3.20	2.97	3.32	4.89	5.07	5.15
Stanford	3.05	2.93	3.16	4.45	4.90	4.59
Informal	0.98	1.00	1.03	2.20	2.23	2.28

TABLE VI
ANALYSIS OF THE THREE CAPACITY TESTS EMPLOYED IN THE STUDY

Mean Scores for the Second Grade California Test of Mental Maturity, the Fourth Grade California Test of Mental Maturity, and the Wechsler Intelligence Scale for the Two Hundred and Forty Remedial Readers

	Elementary			Secondary		
	Remed.	Correc.	Devel.	Remed.	Correc.	Devel.
CTMM—Grade 2	85.60	78.35	88.98	95.28	81.15	93.58
CTMM—Grade 4	88.80	91.30	86.60	90.38	81.75	91.58
FS—Wechsler	96.00	96.00	96.23	96.00	96.00	96.00
VS—Wechsler	96.56	94.25	91.45	93.40	93.40	91.03
PS—Wechsler	100.58	99.38	102.56	99.48	99.50	101.50

TABLE VII

INTERCORRELATIONS OF TESTS IN THE WECHSLER INTELLIGENCE SCALE FOR CHILDREN
Wechsler's Standardization

	I	C	A	S	V	DS	PC	PA	BD	OA	Cod
Comprehension	.61										
Arithmetic	.59	.46									
Similarities	.67	.61	.50								
Vocabulary	.74	.60	.46	.66							
Digit Span	.39	.28	.40	.34	.38						
Picture Completion	.35	.25	.26	.36	.31	.23					
Picture Arrangement	.35	.31	.25	.44	.41	.18	.35				
Block Design	.48	.33	.35	.45	.42	.29	.51	.42			
Object Assembly	.29	.13	.20	.31	.33	.13	.55	.42	.63		
Coding	.38	.32	.34	.33	.37	.24	.23	.35	.35	.38	

INTERCORRELATIONS OF TESTS IN THE WECHSLER INTELLIGENCE SCALE FOR CHILDREN
240 Clinically Retarded Readers

	I	C	A	S	V	DS	PC	PA	BD	OA	Cod
Comprehension	.37										
Arithmetic	.37	.15									
Similarities	.07	.10	.13								
Vocabulary	.59	.47	.12	.03							
Digit Span	.08	—.05	.18	—.11	—.12						
Picture Completion	.13	.15	—.16	—.07	.06	.01					
Picture Arrangement	.01	—.05	—.17	—.03	.04	—.12	.14				
Block Design	—.21	.08	—.18	.13	.07	—.02	.22	—.11			
Object Assembly	—.29	.01	—.21	.02	—.10	.09	.26	—.12	.58		
Coding	.01	.11	.10	.11	.17	.05	—.40	—.04	.10	—.16	

7. Neurological and/or Emotional Factors in Reading Disabilities

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IT HAS BEEN my experience that all of us interested in the diagnosis and treatment of severe reading disabilities have arrived at an acceptance of the concept of multiple-causation of these disorders. There often appears, however, a disparity between the endorsement of this premise and its practical application in diagnostic rationales, in remedial therapy, or in both fields. Undoubtedly, there are many contributions to this state of affairs; yet no matter how we may applaud the interdisciplinary approach, it is apt to be sterile if the discrete disciplines investing their thoughts and techniques do not clearly communicate with one another. The effort to clarify *is* being made, but inadequate understanding or appreciation of the depth or importance of the other specialists' interests and contributions is often a major flaw in this effort to achieve reciprocal understanding.

In the field of reading disorders the inter-disciplinary approach moves ahead, though more slowly than perhaps it should because of these hindrances. As a result, there is still much in the way of insufficient differentiation of these dysfunctions. This condition appears to be particularly applicable when there is reference to neurological factors and/or emotional problems relating to the cause or treatment of reading retardation. It is, therefore, the purpose of this paper to try first to summarize our current knowledge of the brain's general functions in relation to the language process and reading in particular and second to show how brain dysfunction may influence the child's personality reactions to the reading demand. Thirdly, I shall attempt a brief clarification of the concept of "emotional factors" in reading and fourth, in closing, comment on the importance of keeping these constructs before us in attempting to diagnose the primary and secondary causes of a reading disorder on which to base an appropriate remedial program.

First, the science of behavior must give primary reference to the brain as the organ of that behavior. Action and reaction are functions of the anatomy, configuration, and physiology of the brain, of the condition of the organism as a whole, of the influence of the situation of the moment, and of the organ's experiential trainings. Secondly, though our present knowledges are largely derived from study of the adult brain, they still apply to our understanding of children's development. The pioneer specialists tended to assign a direct relationship between a function and a specific anatomical location in the brain. In their architectural or mechanical view of the brain's cerebral cortex, the gray matter, they assigned definite locations to a long list of specific functions: thus, the concept of a single speech center, an area for spelling, for arithmetic, for word recognition, word memory, for reading, etc. Despite the brilliance and plausibility of these early constructs, there were still large areas in the functions of the gray matter about which man could only conjecture. In their anatomical explorations of the brain, it became clear that the two halves of the cerebral cortex were precisely similar—cell for cell, area for area, pathway by pathway—in their construction. Metabolic and biochemical studies of the healthy, mature brain reflected absolutely no differences in function between the cerebral hemispheres. These informations and clinical observations of patients with injuries, or abnormal brain developments, provided the bases for plausible hypotheses about our cortical functions, some hypotheses of which are still with us today. However, modern techniques, such as refined neurosurgical procedures, electrical stimulation of the living brain tissue, electroencephalography, neurophysiology, etc., provide us with new insights which render many of these earlier theories untenable.

On the basis of this pioneer research, therefore, it was seen that the cerebral hemispheres were twins in construction and metabolism, being different only in their opposite left-right orientation. In each hemisphere identical "motor areas" innervate and coordinate muscular activity on the side of the body opposite to their respective locations. Thus, the right hand and foot and the motor act of right-eyed sighting originate in the motor strip in the left hemisphere. Our left-sided neuromuscular action arises in the right hemisphere. The exception to this fact is the speech musculature which is served by both hemispheres simultaneously. This demonstration of independent, bilateral motor innervation led to the postulation that the remaining portion of each hemisphere's functions, other than speech articulation, possessed a left and right orientation; and because they were twins in construction, they were also twins in all other potential functions. Thus, the early investigators believed that man's language function was bilaterally represented in each hemisphere. They noted that this language function appeared to be more strongly represented in the left half. Thus came the formulation of the theory of hemispheric dominance for language function in man and the related postulations that our motor preferences were somehow symptomatic of the establishment, or ambivalence, of such cerebral dominance for the language function. Implicit in this concept was the notion that once this language dominance was unilaterally established, the so-called nondominant hemisphere somehow retired to a nonfunctional silence, hardly a logical deduction in the face of nature's consummate economy. In children, specific language disorders, reading dysfunctions, dyslexias, reversals of symbol orientations, etc., were felt to be symptomatic of a child's failure to establish this hypothetical dominance.

Current research still supports the view that man's motor speech is bilaterally represented. The balance of his language function does *not* appear to be bilaterally represented. Research reveals that in well over ninety per cent of adult mankind language is served unilaterally and by the left hemisphere, regardless of whether the individual is left- or right-sided or "mixed," with respect to motor preferences. We know that given normal acuities, the auditory- and visual-afferent pathways carry incoming impulses to both hemispheres simultaneously. It is now apparent, however, that each hemisphere deals quite differently with these incoming stimuli. The temporal and parietal regions of the cerebral cortex, all the cortical areas posterior to the muscle innervation "strip," are currently assigned separate yet not mutually opposing nor wholly independent functions. The *left* hemisphere reacts to and utilizes those stimuli which refer to language, be they individual symbols, visual-auditory associations, whole words, or more complex verbal ideation. The left hemisphere also deals with the formulation and expression of thought via the language function. Current research reveals that the *right* hemisphere in the temporal-parietal regions deals with nonverbal stimuli and purpose. It appears to serve form and spatial perceptions, directional orientation, time and spatial sequences, and body schema; that is, the individual's concept of his physical Self and its relation to the environment. Present data reveal that injury or dysfunction in those regions of the *left* hemisphere which serve the language function creates corresponding inefficiency in the related facets of our verbal functions. Similar damage or dysfunction in the *right* hemisphere brings about deterioration or anomalous development in the nonverbal functions. Faulty efficiency in either hemisphere reduces the total effectiveness of the individual and also results in differential effectiveness in the individual's dealings with language and/or the environment. It would certainly appear, therefore, that the original concept of cerebral dominance, the focus on so-called "Mixed Dominance," or the specious term "Non-dominance," is utterly untenable. It also becomes clear that our increasing knowledge of the functions of the cerebral cortex demands more careful and circumspect thinking from all of us about the etiology of reading disorders in school-age children.

Through his first six or seven years, the young child's cortex is busy evolving, analyzing, synthesizing, and integrating capacities along both verbal and nonverbal lines. Transcortical efficiency, the interchange and synchronous association of these verbal and nonverbal functions of the two hemispheres, is the final goal of maturation. Inspection of our concepts of "reading readiness," the efforts to establish predictive criteria for future reading success, the related tests aside from intelligence inquiries, have the purpose of evaluating the developmental levels of both the child's verbal and nonverbal functions. There is felt to be a discouraging prospect for reading achievement in the child whose nonverbal maturation is demonstrably delayed. Where these functions have been measured, recommendations for special trainings in visual perception, visuo-motor improvements, directionality, etc., are promptly forthcoming. Where the various facets of the child's language function are felt to be disproportionately undeveloped, similar predictive pessimism results; and efforts are made to broaden and deepen both the receptive and expressive vocabularies and language skills. Wherein there appears to be adequate maturation of both verbal and nonverbal functions *and* their integration and wherein there are no hindering personality problems, we see children able to progress fairly smoothly in acquiring reading achievements commensurate with their abilities.

Continuing our discussion of neurological factors, it is necessary to consider the reading problems presented by children whose symptomatic pictures bespeak the presence of brain dysfunction. Time does not permit discourse on children with obvious, demonstrably damaged brains: children with focal lesions resulting from birth, or other trauma, or from disease. There is, however, a segment of the school population whose reading disorders are felt, nevertheless, to be symptomatic of some form of dysfunction within or between the hemispheres of the cerebral cortex. Fairly careful studies have resulted in the assignation of terms such as "minimal brain damage," yet it is difficult to find clarification of the exact nature of this "damage." Nevertheless, the specialists are convinced of the presence of some hemispheric dysfunction of a diffuse, usually bilateral nature in these children. Accompanying the reading problem is often a confusing array of inconsistent symptom patterns concerning functions as well as behaviors. These children are often poorly adjusted socially; and in this latter respect their "social dyspraxia" may be felt to be the more prominent symptom, requiring that psychotherapy be instituted as the only treatment of choice.

The human organism cannot avoid psychological reaction, either at the conscious or unconscious levels of behavior, to a physiological affliction. In the injured brain this reaction is inevitable; and there is usually a very poignant reaction the moment the individual discovers, intellectually, that for some reason unknown to himself, he cannot meet the everyday requirements of his environment. In the adult injured brain, Goldstein uses the term "catastrophic reaction" to describe the individual's intense panic and anger and resultant emotional explosion or withdrawal from his world. In children, even when the cerebral dysfunction is "minimal," the tendency is to become hyperactive, overreactive, erratic, angry, or panic stricken. These behavioral patterns are usually unpredictable. These children cannot organize their outer or inner world in an orderly, and thus safe, fashion: they thus give capricious overattention to insignificant details and cannot inhibit inner impulses; and though they may want to conform, their thin, unstable controls are ineffective. Psychologically, these are the children who most need the very routinized, unstimulating, unexciting world at home and at school. They need more than the usual affection and support and yet tight, objective, unemotional disciplines. These behaviors, their origins, their treatment needs, should be explained carefully to parents and school so that the anxieties, irritations, and critical attitudes may be reduced to a minimum. These are often prerequisites to successful trainings and instructions.

Now with respect to those reading disorders in children which are not felt to stem from neurological dysfunctions but are believed to be the direct result of personality problems, there are again no reliable statistics as to their incidence in the general population. The obvious reason for this lack is the infinite variety of opinion as to what does, or does not, constitute an "emotional problem." It has become increasingly apparent that we should not use the term "emotional" as it is a term of such limited meaning. It omits consideration of all the intricate dynamics within our psychological make up. There are three other vital elements of the personality structure besides emotions. These are the ego with its self-concepts and its ways and means of dealing with the emotions, our behavior controls, and our motivations towards our world. The term tends to foster some casualness in thinking about personality adjustments; they keep changing from three to ninety-three years. A crippling or blocking anxiety problem may not stem from emotional sources at all. In the years from three to six and in the adolescent years, our egos move through many changes. The competitive and pleasure-seeking motivations can shift from a passive-negative "sit down strike" to an ebullient, competitive pursuit of achievements. Space does not permit entering in to the infinite variety and complexity of personality dynamics of children with reading disorders. You are all familiar with the anxieties, feelings of insecurity, withdrawals, and compensations which youngsters with reading disabilities have portrayed.

In our clinic population, however, I would like to describe four of the more common personality pictures which we see as causative to a child's failure to learn to read adequately. First, we have the "too good" child. This child is a youngster who has evolved very little in the way of his own independence and ego strength. From his infant years he has been conditioned to feeling that the only way he can have status, the one route to avoiding parental rejection, is to give heed to their assiduous trainings to be a well-behaved, conforming credit to the family. When this youngster arrives in school, he is a quiet, shy, conforming youngster who behaves himself according to the letter of the law. He dares not, and cannot, assert independence in play or at intellectual levels. He is measurably bright. He does not learn to acquire reading skills because all he can do is go through the motions in dutiful fashion. His conscience pushes him to memorize, and he cannot transfer to any real learnings. He is a youngster who needs psychotherapy; but treatment is always very slow here, not only because of the long conditioning but because there is so little to really reach in this youngster. The second group is the very immature. These are youngsters who have long been "babies," whose wants and needs have been everlastingly anticipated. Not only is there very inadequate ego differentiation in this group but they are usually hedonists who resort to a great variety of avoidance tactics. They cannot tolerate frustration of their hedonisms; and so the learning process, the tedium of precision, and the threat to their maintenance of pleasurable fantasies produce little bona fide learning. The third category consists of those youngsters whose parents are extremely ambitious for them. Both mothers and fathers of these youngsters have long pushed and pressured these children for achievements beyond their psychological means so that they arrive in the classroom with fairly rebellious, negative stance. They have learned the defense of seeming to comply, to go through the motions which adults demand; but in actuality they are subtly refusing to invest any real energy in the learning process. Frequently the parents have set great and unrealistic goals in reading for these youngsters. Unconsciously they feel their integrity threatened, and they resort to aggressive passivity. These are the youngsters whose error patterns are filled with substitutions which are utterly meaningless. They look at words and offer neologisms. The fourth group consists of youngsters who have been both overtrained and overmanaged. Their egos have never developed any essential differentiation; their self-concepts are blurred and weak. They cannot listen well, nor can they express themselves as they have never been encouraged to do the latter. These are youngsters who withdraw into autistic fantasies and who shut out the world which is so threatening to their undeveloped or crushed egos. These children can produce all of the classic array of reading errors that are sometimes presented by the brain injured.

With a clever teacher and some parental guidance, the rebellious youngster in the third group can often be swung around to a proper achievement road; but we have found that usually the other three categories require psychotherapy before they can utilize even the most skilled remedial instruction.

One of the chief problems facing us today is differential diagnosis of reading disorders. All too frequently, the interdisciplinary approach and all the evidence supporting the need for consideration of multiple-causation are either set aside or only casually considered. We agree with Roy Kress that too frequently "clinical diagnosis" of reading problems tends to begin and end with evaluation of the youngster's performance in reading. It is our belief that clinical diagnosis must consider the four major areas needing investigation. First is the physiological. Here vision and hearing should be appropriately screened. The clinician should take cognizance of the individual's height and weight distribution. Evaluation of large- and small-muscle coordinations should be undertaken. The youngster's general energies, his living pace, his stamina, and fatigue points should be included. Secondly, there should be thorough investigation via individual psychometric evaluation of the youngster's verbal and nonverbal functions: his visual perception, his visuo-motor integration and maturity, the quantity and quality of his thinking, and his approaches to problem solvings, either verbal or nonverbal. Thirdly, careful study of the youngster's personality adjustments via projective tests is essential. Fourth, are a study of the child's general language functions and a survey of his whole educational-achievement patterns and skills. Along with this group is the need to obtain very thorough and careful developmental and health histories. Included here should be an effort to gain some knowledge about the youngster's genetic inheritance. Only when all of these data are assembled can a clear diagnosis be achieved. Secondly, it is only with this kind of knowledge that an appropriate therapeutic or remedial plan can be formulated. In its essence, this plan is the inter-disciplinary approach; and it helps us to avoid the pitfalls of assigning a child to remedial-reading instruction alone when his primary need may be psychotherapy. It will avoid recommending psychotherapy alone for the brain-injured child. Eclectic diagnosis leads to an unbiased treatment plan for the whole child and is not only more scientific but certainly more humane.

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8. The Clinic: Purposes, Organization, and Operations

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THE PRESENT AUTHOR believes that, automatically and by definition, reading is multi-disciplinary. Thinking such as Hebb's *(3)* and Piaget's *(4, 5)* suggests that proficiency in reading begins long before a child starts to school, and that good reading is based on drives (traits, habits?) such as curiosity and attention. These have their foundation in infant and early childhood experiences, probably crucially from six months to about three years of age. Data such as Bayley's *(1)* tell us in impeccable statistical-normative fashion that children up to 15 months of age do not differ from one another in their scores on so-called tests of intelligence, although her material suggests that Negro infants may be superior to non-Negroes in the motor aspects of early development. Her excellent population-representative data neatly tie together results from many smaller, less representative studies of the U. S. population, almost all of which have found that "babies start off even" but differ widely in "intelligence" from 18 months (approximately) on. This difference increases with age up to about six years and is most conspicuous when we compare children from one socioeconomic class with those of another.

Something dramatic and presumably lawful and, we believe, remediable, resulting from learning happens to children after they are 15-to-18 months of age. We shall return to speculations about this belief later in the present paper. It is brought into the introductory section because it pertains so closely to the multidisciplinary work we do at the University Schools Clinic Complex.

We all know that defective ("not up to expectancy") readers come from families of all educational and socioeconomic levels. It is probable that, if any given reading or psychological clinic is at all fee- or research-based, a higher percentage of enrollees (using as a baseline the total U. S. population) comes to us from middle and higher rather than from lower social-class families. Parental concern about their children's educational progress is probably largely responsible for this situation.

It is now appropriate to discuss the formal structure and operation of the University Schools Clinic Complex. We are by no means unique. Associated as we are with a university, our first function is graduate teaching and research. Within our wall—and like most such centers we are extremely cramped for space—we provide the finishing touches (in the sense of honing up via practicum) the skills for which our students have presumably been previously prepared by their didactic classroom instruction. A plurality, probably a majority, of our students is working toward some form of special degree in developmental reading: a few students are at the B.S. level; most of them, at the M.S.; and a substantial and influential minority is at the Ed.D. or Ph.D. level. The same is true of our psychology students, although all of them are either M.S., Ed.D., or Ph.D. candidates.

Our reading-and psychology-training programs are closely meshed, particularly in practicum courses. We also contribute generously in *instructional* (and we like to think *functional*) time to practitioner-research skills of graduate students from other disciplines, our heaviest enrollments coming from *counseling and guidance, educational* and *clinical psychology,* and *special education.*

The Clinic Complex staff includes the following disciplines: reading, psychology, social work, and speech and hearing. We provide good optometric, neurological, pediatric, and psychiatric consultation services as needed, based on a sliding-fee scale.

Our one social worker is paid from grant monies. He has demonstrated that there is a need for his services not only to our private-and public-school clientele but to the university administration. The speech and hearing staff, while an important part of our instructional-research-service team, functions principally as service personnel: the members screen, consult, and "co-work" with us in therapy as called on.

How does our service work tie into our primary functions of teaching and research? When we were first organized (Professors Leo Fay—known to most of you—and Nick Long set up the original operational plan), service was more emphasized than it is now. We were subsequently directed, wisely, we believe, to restrict our service so that it would not be for all comers but would be limited to children and child-family constellations that would faciliate our teaching-research function. We have found that this directive can never be followed according to the letter of the law:

(1) There are too many children who need help.

(2) Some of them who need it desperately do not fit an instructional or research pattern.

(3) None of us would have entered or continued his professional affiliation without a commitment to social welfare.

(4) Thus, when a child must have help and *now,* we give it to him although the time so spent often, to speak colloquially, comes "off our backs."

There are perhaps more exceptions to the instructional-research child—service function made by psychology than by reading staff—I say perhaps, because I do not know. For the clientele served by our reading specialists, developmental-reading problems become noticeable or startling from one marking period to another or when promotion from one grade to another is involved. Such problems do not usually present the child on a given Monday morning with the necessity to leave home permanently or to kill himself by turning on the motor of the family car after his parents have gone to work. His reading (or arithmetic-mathematics) often may have contributed to such drastic decisions since they are basic to his education, but in my experience, they have never trigged it. In psychology, we meet desperate children with distressing frequency, and we must deal with them as they come.

Implicit in the preceding, mildly melodramatic paragraph lies the core of our practicum-intern training. After the psychological staff has talked, perhaps for half an hour or perhaps for 20 hours, with an 11th grader who had, for example, originally contemplated suicide, the major remedial measure may be for him to enroll for sessions with a good, therapeutically oriented, developmental- (or, more conventionally and perhaps more tritely, remedial) reading specialist.

This discussion leads to another point that was mentioned to me in a casual personal-professional conversation many years ago. The lady involved was one of the world's best known child psychiatrists. One of her special interests was childhood schizophrenia. She may have documented her point in one of her many publications; but if she did, I have long since mislaid or forgotten the reference. To me, the most intriguing of her points was, "The only technique I have ever discovered for bringing a schizophrenic child into contact with his world is remedial reading." This remark has stayed with me during the ensuing years: she has long since retired, and I am well past 21.

My own professional practice and affiliations have been strongly affected by the remark. Its meaning has also been formalized (and thus honored?) by a label conferred by the American Orthopsychiatric Association. As we know, if we have a syndrome, we thereby acquire status. In its 1964 program, the American Orthopsychiatric Association sponsored a lengthy, well-attended, rather interesting panel called "Academically Oriented Therapy." None of us in the Clinic Complex ordinarily uses the term, except when we are talking to reporters or have some need to assume public dignity. But we use it in practice every working day.

Along with working with skills (I hesitate to use the word *skill* in connection with reading because the process of reading transcends any dictionary definition of *skill*), we work on interpersonal relations with all children who come to us. Each child's remedial- or developmental - reading sessions, whether he undertakes them alone, with his therapist, or as one of a group, are as much anchored (in the sense that this step is an underlying plank of our reading therapy) in interpersonal relations as they are in the mechanics of word recognition, phonetics, over-all comprehension, or any of the other complex behaviors that enter into the art-skill of good reading. An entire formal-remedial session may go by without a hint that the business-at-hand is reading; or an entire session may occur without any reference, direct or oblique, to interpersonal relations. But good interpersonal relations and communication between child and therapist are the heart of reading therapy.

We are working to document this philosophy by hard data. At this writing, Professors Craig, Fay, and Hodges have discussed our research on this issue. This fact is appropriate from the differential assignments given to them and me by the *International Reading Association's* program committee. My assignment is to discuss an *ideal*.

What is this ideal?

We advocate a team approach for the following reasons: (1) In the case of a child having difficulty with reading—and, as I look at the literature, it seems that a median statistic of 75 percent of associated-psychological problems (centered around the general term "motivation") is appropriate for so-called reading problems—non-conventional didactics are required. (2) Those of us who are psychologically oriented may have neglected, because for so long we have been told "Never underestimate the *psyche*," variables of functional or functioning (as opposed to simpler concepts such as 20/20 vision) use of the eyes, perceptual difficulties, subtle neurological factors that have not yet been formally put down in the literature, and so on. (3) We have neglected the earlier history of the child: How does he view language? How has it been used to control and stimulate (or restrict) him? Has it been used in his infant (per-two-years-of-age) life? Was it fun or non-fun in terms of his relations with his family? Is he curious about what he can learn and how he can extend himself by reading? Or is it an onerous task imposed on him by, from his point of view, hostile and/or non- understanding parents and teachers? Has he learned to take in language by his eyes and ears through such media as television and peer-adult verbal interactions?

This is why I say we need to approach reading, if we hold an *ideal* in mind, as a multi-discipline. Psychiatrists, for example, have told us about passive-aggressive children (and we have not paid enough attention). These are youngsters who, underneath, hate the school process (and probably most of those associated with it) but manifest their hate in subtle ways that do not attract official censure. They are the frequent sharpeners of pencils, the droppers of things, the youngsters who, because of some legitimate-appearing need, cost the entire class a good five minutes or so of instructional-procedural time per instructional or tutoring hour. I should suggest that many of our reading cases belong to this neglected syndrome, and I give psychiatrists full credit for highlighting it for us. We know, from research going on at the Clinic Complex, two such children (five-year-olds) from our experimental population of 15. It is interesting to note that the head and assistant teachers, otherwise in almost perfect agreement about the popularity status of 13 of the children their aegis, rate these children as "not well liked by their peers." *But their peers put them at the top of the popularity scale!* This finding, statistically meager though it is, is worth thinking about.

Such children, and I suggest there are more of them than we have traditionally recognized, arouse hostility in their teachers or their reading (or psychological or speech) therapists. They are gifted in techniques calculated to annoy anyone responsible for them, be he parent or social worker.

Social workers can, through well-gathered case histories, suggest to us who such children are. Good psychiatrists or clinical psychologists, if they are available in our working group (or sensitive, "Skinnerian" type-observers, who take notes on the child during his life situation in order to decide what is and what is not giving him satisfaction), can tell us rather accurately which children are passive aggressive.

We need a whole generation of school-clinical psychologists that understand that as much as and probably more can be learned about children from an achievement-test battery than a Rorschach and who can put this knowledge to work to help the individual child, the child in a group, and the teacher of such a child or group of children, and the associated parents and administrators. Such a psychologist (and those of his ideal generation) need at least as much feedback from good classroom teachers or reading specialists as the latter need from them. Developing a common language is essential.

In the context of IRA, reading specialists are taken for granted.. I shall not presume to discuss them other than saying "They need us psychologists as badly as we need them."

Speech and hearing personnel must be called on to help children with special disabilities. They should be fully functioning members of the team, in the sense of the ideal interpersonal relations discussed above. Such a truism holds for counseling and guidance personnel or educational-psychology or special-education professionals.

Finally, returning to such people as Hebb, Piaget, Berlyne (e.g., *2*), and the historically important idealogical subgroups that have splintered such religions as the Protestants, for example (e.g., "The Albigensian Heresy"), we need fresh ideas in our approaches to "Why Johnny Can't Read." To say that this inability is a clear choice of phonics over sight vocabulary is sheer nonsense. Johnny, if he is not brain damaged or severely intellectually limited, started to learn to read during his first year of life, at least in a preparatory motivational sense. Piaget's anecdotal records of his own children and his "gimmicks" for teaching them curiosity (or capitalizing on what they had) are classics that we should all know.

A general conception of words as shortcuts, as the major distinction between us and the lower animals, as promulgators of insight, as providers of fun, of tools for the ultimate human function of intimate-happy-fulfilling interpersonal communication is something that every one of us, parent or teacher, should hold as one of our central preoccupations. In general, people who cannot *really* read cannot *really* talk. If you do neither very well, you are to some degree subhuman. This roll none of us wishes for his children.

To conclude, let us return to Berlyne (others have said much the same sort of thing as he has, but he has provided interesting data, e.g., 2). He talks of *epistemic learning*, the foundation for which is *epistemic curiosity*. Essentially, epistemic learning occurs because you *like* to learn, and epistemic curiosity is the motive-behavior pattern that leads to epistemic learning. These concepts are similar to the familiar "need for achievement" about which we have heard so much but, for the present writer-speaker, are couched in a setting of theory-description-treatment that fits better with an educational setting (where reading is necessarily formally housed).

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9. Auditory- and Visual-Perceptual Training

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DURING THE PAST three years we have tried to find out how effective various programs of auditory and visual-perceptual training are in helping the young child learn to read. Our first efforts at visual training were ignited by studying the work of Kephart, Getman, Delacato, and others. We were intrigued by what they had to say concerning the training of visual skills and the linkage they drew between visual training and improved school achievement.

Would these programs of visual training, we asked ourselves, help the first-grade child who is doing badly in reading?

A Study of Reading and Visual Perception

To answer this question, we picked out sixty first graders with Jastak Wide Range reading scores and Bender Gestalt perception scores in the bottom quartile of their classes. These first graders were divided into four groups.

Group I received modified visual training, which consisted of such activities as matching simple shapes, completing incomplete drawings of geometric designs, replacing pieces on a perception board, and working with a simplified writing system using pictographs. Large-muscle activities such as walking a balance beam, bowling, and cross-patterned creeping and walking were also introduced and used at each class meeting by this group.

For a second group we provided extra work with simple reading materials. They worked with the alphabet, learned basic-sight words, practiced hearing initial consonants, and made experience charts and stories.

Group III, which we set up to test the Hawthorne effect of instruction, learned songs and plays, colored pictures, made puppets, and listened to folk songs and stories.

Group IV was tested, received no instruction, and was re-tested at the conclusion of the project. This group was set up to determine the effects of maturation, history, testing, and the interactions of these factors.

The School and its Patrons

Our work was carried on in a lower-class school in Southwest San Diego. This part of town has many Mexican-Americans, Negroes, Samoans, and Puerto-Ricans. Fathers are enlisted men in the Navy, work as service personnel in the hotels and restaurants of San Diego, or are employed in the shops of our large space industries. About half the mothers work outside the home.

Since we did not include children with severe emotional problems or limited intelligence, the groups were not hampered by those individuals who demand all of a teacher's time and energy. And, too, we were aided by the fact that all children were volunteers. Their parents were told about the study and invited to enroll their children. No child participated unwillingly.

We met with these children twice each week for forty minutes' instruction. Our work lasted from October through February.

What Did We Find?

At the end of the instructional period, we again tested these children on the Bender Gestalt and the Jastak Wide Range Reading Test. We found three things, all of which were significant statistically.

First, time helped all children draw better Benders and read more words on the Jastak. What went on in that time, since we are referring here to the control groups, was regular classroom instruction. But at any rate, we did not have a hand in the improvement. Children improved without any special help from us.

Second, the group that had special help with classroom-reading materials did better on the post-test Jastak than did the experimental, extensive visual-training group or the two control groups.

Third, the visual-training group drew better post-test Benders than did the classroom group or either of the control groups. It looks as if extensive exposure to visual-training activities does permit the child to improve his drawings.

What Does This Mean?

We're not quite sure what this means. A number of researchers, such as Jean Goins, Donald Durrell, and Newell Kephart, have concluded that visual-perceptual skills are related to early reading success. Of course, they are not necessarily in agreement as to what that skill might be.

Kephart and Getman have concluded that visual skills can be trained and that better reading will follow from that training.

On the basis of our work, we must conclude that, for our children at least, perceptual skills can be trained. However, it looks as if that training may be of little use to the child in reading if it only helps him draw better Benders. And, we have no evidence at this time that drawing better Benders will result in better reading for the typical poor reader with faulty perceptual skills. While it is possible that there exists a small group of poor readers with such damaged or immature perceptual apparatus that the visual training we provided is necessary, we apparently did not have any of those individuals in our study.

Recommended Visual-Perceptual Training

First, we would urge that primary emphasis with readiness materials be placed on the stuff of reading-letters, groups of letters, words, and groups of words. The tracing, matching, and naming that is to be done should be done with the symbolic elements which make up our written code.

Our second recommendation is that the physical activities, such as creeping, cross-patterned walking, eye-hand coordination, and the like, be placed in the physical-education part of the elementary-school program. Teachers report to us that primary children who are clumsy and maladroit also do badly in their school work. While their clumsiness and awkward behaviors are only one aspect of a greater syndrome of learning difficulties, in our concern for the total child we should attend to his physical coordination and well-being. And children enjoy these activities and concentrate on doing them well. Teachers tell us that there were better balance and coordination among their pupils as a result of our work with them. While this ability may not be directly related to reading, body grace and poise are desirable; and we should do what we can to help children develop these physical characteristics.

Our third recommendation has to do with further study of the relationships between visual perception and reading. It has become conventional for researchers to include their remarks about a piece of research by saying that further study is needed. In this case further study *is* needed. But it must be a very special kind of study. In the first place, we need to be specific about what we mean when we say "visual perception"; and we need to be specific about what we mean when we say "reading." Visual perception is not a singular ability but a cluster of abilities. The same can be said for reading. What we must do from here on out is to begin the study of what the inter- and intra-relationships are between and among these preceptual and reading skills. We must study time, materials, individuals, and the interactions thereof if we are to advance our knowledge. Let us give an illustration. How much time should the child spend each day completing incomplete letters? Or matching alphabetic forms? Or on creeping and cross-patterned walking? We simply don't know. Is five minutes' instruction as good as fifteen? If it is, why spend fifteen? Published research doesn't answer this question.

Visual Perception and Auditory Perception

In the last paragraph we suggested that the multiple components of visual perception needed to be studied. Our next remarks will sound paradoxical in the light of that suggestion. For we are proposing that it is difficult, if not impossible, to separate visual perception from auditory perception. During our study, we came to the conclusion that at least part of these children's difficulties started with their inability to hear sounds and attach proper meanings to those sounds. That is auditory perception Every time we gave directions; every time we asked a youngster to make a hook-up between a letter and a sound, we were dealing with a partnership between auditory and visual perception.

As a result of this awareness, we have set out to develop measures for assessing how accurately a child perceives sounds. In our tests, we have tried to measure such things as the ability to discriminate between like and different sounds, the ability to blend sounds into meaningful units, the ability to identify likenesses and differences in inflectional patterns, and the ability to reproduce similar inflectional and intonational patterns.

We have found out a few things from this test. First, and not surprising, we found that children from middle- and upper-class schools do better on the test than do those from lower-class schools. Second, we found that children who do badly on the auditory-perception test tend to do poorly in basic-reading skills. Third, and somewhat surprising, is a very low correlation between this test and an intelligence test. Whatever it is we are measuring—and we have chosen to call it auditory perception—it does not correlate well with intelligence. This discovery pleases us, for it suggests that auditory perception and intelligence are two different facets of the central-processing system.

We have begun to develop materials to help improve auditory perception. We use tapes in which we ask the child to indicate when beginning, medial, and end sounds are alike or different. We speak words very slowly and ask the child to figure out the word which is being spoken and say it back to us in proper rhythm. Working for accurate imitation of a particular speech melody, we use such machines as the Language Master and ask children to repeat sentences and phrases.

How well these activities are paying off remains to be seen. We would suggest, however, as a result of our work, that the classroom teacher who wishes to do a better job in developing readiness for reading follow these general prescriptions:

1. Work with symbolic materials closely related to reading—letters, letter names, and letter shapes.
2. Help children build their auditory perception and listening skills. Children do not learn to listen without our help. Small chunks of sound patterns which the child repeats or responds to are to be used in beginning instruction. Gradually, the complexity of skills in auditory perception may be increased.
3. Visual-perception activities which are most effective in building reading readiness seem to be those which are most closely related to reading. There may be a small, hard core of children with gross immaturities in perception who need work in general shape and picture-matching activities and in the creeping and cross-patterned walking activities which have been recommended so often of late. However, our work has not located a sufficient number of these children for us to go on record as advocating these activities for the majority of primary children who are slow in learning to read.

I. EVALUATION IN READING

1. Innovations in Reading: A Look at Evaluative Procedures

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As UNITED STATES Commissioner of Education, Francis Keppel stated, ". . . no child within our society is either unteachable or unreachable . . .whenever a child appears at the doors of our schools he presents a direct challenge to us and to all our abilities."

Many educators have been challenged in recent years to "pause in the day's occupation" in order to take a keen look at each child coming in the door. Which child will need a prolonged "readiness" program? Which are the "exceptional" children? How can we teach each one most efficiently? And, finally, how will we know for certain that we *have* taught each one to the extent of his ability?

Action research as it has been reported in the past two decades has shown that our vistas are widening, that our prospects of improving the reading levels of *all* children are better than ever before. As we peruse some of the professional literature relating to current evaluative procedures, we can detect the fact that, recently, more than lip service has been paid to the concept of "individual differences." Increased attention has been paid to evaluating reading attainment of the overachiever, the underachiever, the disadvantaged, the "remedial" reader, the "reality-bound" child, the precocious child who reads before school entrance, and even the mentally retarded. Evaluative procedures have also involved ways of measuring the child's learning ability, detecting the factors inherent in the reading act, analyzing tests and other tools of diagnosis, and surveying reading programs—the methods, techniques and materials of instruction.

Individual Differences

More than one study has emphasized the importance of screening prior to placement. Ilg and Ames have recently reported their studies of young children in Weston and North Haven, Connecticut *(3)*. These were school-placement studies in which they administered behavior tests used at the Gesell Institute. As a result of their studies, the authors suggested a preliminary developmental appraisal of each child, with subsequent placement in an *A* or *B* quality group at his grade level. Each child would thus be placed in an appropriate group, determined by his own developmental level and quality of performance. Provided with meaningful experiences, children in each group might well be excepted to advance at a good pace. *School Readiness (3)* provides complete information regarding the developmental examination, interpretations of the tests used, summaries of uniform behavior trends, and implications for teaching in the primary grades.

Of special import to the reading specialist and teacher is the description by Ilg and Ames of the "reality-bound" child. He is the child who learns through doing, through being shown specifically the *what* and the *how*. He needs to be taught with real things he can hold in his hands. He is poor at abstractions, so he has difficulty when exposed to the usual teaching techniques. Ilg and Ames concluded that such children under a developmental placement program would best be taught in an ungraded class of about 15 children from ages 8 to 13.

Perhaps those of us who meet many remedial readers in our reading classes and clinics might investigate the possibility that some of these are the "reality-bound" children for whom all abstractions, like *reading*, have been difficult. More effective remedial procedures can be initiated when the "reality-bound" child is detected. Active participation or involvement in his learning experiences will help this child. For example, one boy, 11 years old, with no basic sight vocabulary helped his teacher in the Reading Clinic prepare tachistoscopic slides of words he himself wanted to learn. He flashed the words himself, using the Keystone Tachistoscope, and kept his own records. Words he learned this way he put into sentences and paragraphs and eventually learned to read. The Fernald techniques may be tried to good advantage with the "reality-bound" child.

The development of effective reading programs for the disadvantaged is currently recognized as a necessity. Evaluative procedures are needed for the detection of these children's status and varied problems, for the development of effective teaching techniques and appropriate reading materials, as well as for some effective tools to evaluate their progress.

Those who have attempted to provide effective programs for the disadvantaged have found themselves pioneers in an unchartered land. Tests, materials, and techniques which had hitherto been used were producing results that were wide open to questions. New tools for diagnosis and evaluation have become an obvious necessity. Teachers cannot "teach blindly." They need to know each child's strengths, weaknesses, personality, potentiality, and other pertinent factors. They need to know which methods and techniques would be most effective with certain individuals or small groups within the classroom. They need to have enough varied material that will be interesting and challenging to the different types of children in the room. Certain large urban areas, notably Detroit and New York City, have initiated programs for the disadvantaged—developing new testing instruments and new reading materials, and experimenting with newer approaches to instruction. As these programs proceed, they will need to be evaluated for their effectiveness—thereby establishing a definite need for efficient evaluative procedures. Another aspect which might be pointed out here is the need for teachers of the disadvantaged to evaluate themselves—their attitudes, their ways of thinking about education and educational objectives, and their possible need for help in understanding and instructing the disadvantaged child who appears in the classroom. Certain government programs which have recently been established underscore the urgency of dealing effectively with the disadvantaged in the classroom.

In a study of four hundred mentally retarded *educable* adolescents, Ruth Boyle *(2)* reported that a year's emphasis on reading produced a level of reading achievement significantly higher than that attained by a similar group which had no specific additional instruction. She concluded that without special help, educable adolescents will not read at a level near their capacity. The implications for us are clearcut. Another segment of the school population will benefit when individual differences are evaluated and suitable reading programs established.

Other Aspects

Another type of question has been asked: What are the subskills involved in effective reading achievement? The substrata factor approach to analyzing the reading act was originated by Holmes at the University of California in Berkeley. Singer in 1965 *(5)* reported the substrata-factor evaluation of a precocious reader, aged 5½, to determine the specific subskills involved in her attainment of a fourth-grade level of ability in speed and power of reading. A theoretical model or flow chart, presenting the results of the substrata analysis of speed and power of reading at the fourth-grade level, appeared in the January 1965 issue of *The Reading Teacher.* The child's sub-test results were compared with those of a group of sixty fourth-grade children. She attained nearly a fourth-grade level of speed and power of reading, with her well-developed auditory and visual word recognition and preceptual skill. Her subskill test results, however, were extremely uneven with some superior and some inferior performance in certain areas. It is impossible to generalize that her pattern of reading is representative of precocious readers. Further study of the patterns of similar children is indicated by Singer as necessary. The use of theoretical models in reading research might well prove productive for reading evaluative procedures, suggesting further adaptations to the imaginative research worker.

A promising evaluate procedure that focuses attention upon both the individual child and a potential method for his effective instruction is the *Mills Learning Methods Test (4)*. Robert Mills has devised a test to determine how an individual pupil best learns words—by a *phonic, visual, kinesthetic* or *combination method*. A list of words is taught by each method followed by a later test of recall. In remedial tutoring this method serves several purposes. For the child, a *successful* method is demonstrated; soon he *knows* he knows some words. For the tutor, an economical approach has been determined; no long drawn out procedure of trial and error must be followed. Rarely is this single-method, so determined, retained indefinitely. Instead, it becomes the initial approach to the attainment of a reading vocabulary. Subsequently, other techniques are taught, for greater independence in reading.

Further reflection upon the above procedure might well motivate some teachers and reading consultants to consider the application of the technique to beginning reading instruction in the regular classroom. Determining for various children their most efficient method of learning words initially, would result in a new basis for classroom grouping. Regrouping for further instruction in reading skills, utilizing all types of word analysis, would occur later when children had developed a functional reading vocabulary.

The Reading Survey

Newer trends in reading programs, such as the nongraded primary, individualized reading, programed instruction, linguistic approaches, special programs for the disadvantaged, and others too numerous to list, need carefully planned evaluation. Consider the following statement of an elementary principal in the month of February: "We bought a well known reading program and started it in October with our first graders. We feel that it is the solution to all our previous reading problems." Immediately we should like to raise some questions: *How* is the "new program" being evaluated? Which children would have learned equally well by previously adopted methods and materials? How does the progress of this year's group compare with the progress of groups in previous years? When is the best time to form some conclusions?

It is obvious that this elementary principal could not have compiled satisfactory answers to all of these questions by February. Yet, through the years others have formed judgments concerning the goodness of new or old programs and materials with no more evidence at hand. How can valid judgments be formed? Only with complete information concerning the status of the children and the strengths and weaknesses of the program can judgments and decisions be made with any degree of accuracy.

Money is currently being made available to public and private schools under several titles of the National Defense Education Act, for setting up reading centers, and for improving or establishing reading programs. Again, educators need complete information in order to formulate criteria for making wise decisions. Their selections must be based upon their own local needs and the purposes to be served with new programs and materials.

Evaluation of the *total* reading program is necessary when school personnel are faced with making decisions. The *reading survey* provides an excellent opportunity for the acquisition of a complete perspective of a current reading program. It has been shown in several published reports such as in the Newton, Massachusetts and Chardon, Ohio schools *(1)* that the school staff benefit themselves and the children in the school by coordinating their efforts in formulating objectives, selecting appropriate measuring devices, conducting the survey and interpreting results. Knowledge gained through the survey procedures may well lead to suggestions of changes in techniques and materials of instruction.

School administrators and teachers through the reading survey will have answers that are specific and objective when questions are raised. They *need* objective evidence to show that they already have the best possible reading program, or that they need to consider changes that would lead to an optimum program.

One practical outcome of the reading surveys that have been conducted has been the establishment of an on-going program of evaluation. Thus the strengths and weaknesses of children currently in the program and those who enter during the school year could be identified. Appropriate courses of action could be determined—such as suitable grade or group placement and the possibility of a remedial program for some.

Summary

Evaluative procedures have been developed in the study of individual differences, as noted in reports of the "reality-bound" child, the precocious reader, the disadvantaged, and the mentally retarded, among others. Recent studies have dealt with certain specific aspects—how children learn best, and what subfactors may be related to efficient reading achievement. The reading survey has been found to be the most comprehensive method for evaluative purposes, since it assesses school offerings, methods and materials; examines pupils' present status and future needs; and recommends needed changes.

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2. Test Not?

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ONE OF THE tools of evaluation has always been tests—not just any tests, but standardized objective tests that would help us assess potential and measure academic achievement. Nobody, not even the most ardent proponent of psychometry, would claim that tests are the only yardsticks of evaluation. Nor has it ever been maintained that tests are perfect. A good craftsman uses test results, normative data, clinical judgment, case studies and all other available indices in his work. No trained person would ever deny the utility of tests, since even the poorer ones have degrees of validity and reliability far exceeding the subjective judgment of the best of us.

But of late, we have been bombarded with a barrage of books, lay magazine articles, and even an occasional semi-technical article either damning tests or overlaying them with the blackest of negative connotations. The fury of these attacks makes one ask what kind of logic is behind the onslaught, especially when so few constructive substitutes or corrective measures are proposed.

Why are tests being criticized? What has brought testing in such disrepute? The virulence displayed is so intense that one wonders how the Educational Testing Service at Princeton University, the Psychological Corporation, and Science Research Associates—to name only three national organizations—can even hold up their heads and continue to provide testing services.

What is this fear—almost a phobia—where tests are concerned? What has been happening on the American scene to engender such sound and fury against testing? I suggest that several factors may partly explain the angry opposition.

Like the health quacks who cannot bear objective scrutiny of their dubious "cure-alls," I suspect that some of the modern faddists in education are fearful that their so-called "newer techniques" will not produce the startling gains claimed for them. It is a recognized dictum that if anything exists it can be measured. But if it doesn't exist, then the only alternative is to damn testing and to substitute, in its place, vague concepts, mystic philosophy, and wishful thinking.

Economic factors have dictated that industry use tests in job selection. Wisely used, personnel experts have found tests to be invaluable aids in selecting qualified workers. But industry is now being attacked because it uses tests. Why? Because the unqualified applicant, or one without aptitude, cannot meet the standards, so is not hired. Instead of concentrating our efforts to find how this applicant can be trained so he can qualify for a suitable job, the critics say, "Throw out tests and take the unqualified even if a company goes bankrupt in the process."

All of us know that the culturally disadvantaged cannot do well on objective tests. But we avoid saying it. We even hear that the giving of grades *is* unfair. A college here and there has even transformed its grading system to a pass-fail dichotomy. If this lack of evaluation—this disregard of facts—should spread, our system of educational goals will only become a hodgepodge of fantasy and speculation. *We must face reality.* We must use tests to see what is being done and what can be done. Without such checks, we cannot measure progress nor make comparisons of the relative merits of various educational techniques, whether in the field of reading difficulties or in science. Only by refining its techniques, only by working toward ever closer tolerances, has science been able to achieve its spectacular advances whether in medicine or space technology. And so must it be in education.

Today, we have some graduate students who cannot pass reading tests at the ninth grade level. You may ask how can this happen. The answer is not difficult to find. Some educators tend to be empire builders, so the concept of bigness replaces the concept of quality. The vogue of social and age promotion brought into being the practice of passing any student who had attended the school year. It mattered little that the student couldn't read well; he had to keep pace with his social peers regardless of the educational costs. Parents were made to feel all was well—after all, hadn't Johnny passed? What a shock after these years for parents to be confronted by the fact that Johnny joined the army of dropouts when he was proudly entered in a quality school or college. But, perhaps, even getting on a campus for a short stay is better than not getting on at all. If the present philosophy of sending everybody to school and college should prevail, and if we can toss out testing, we will not even have to identify the failures, as was once the case in India where a student who couldn't qualify for a degree, proudly wrote "AB-failed" after his signature.

Another concept we have is that all of our people must be made literate, perhaps even equally literate. We know that this is impossible by present teaching and testing techniques, but we don't want to accept this conclusion. If we can discard test results, get rid of grading systems, we can comfortably sit back and delude ourselves into believing that Bill is educated and that Bill and Harry and John are equally educated. With this delusion granted, we can quickly and easily begin to believe that Bill and John and Harry have equal abilities and must be given equal opportunities and equal rewards. But we can't deny individual differences if we use tests to measure people. I submit to you that the indictment against tests and evaluation is an indictment of individual talents, of creative thinking, and of constructive accomplishment. Only by throwing tests into the waste can will we be able to forget individual differences. And this is exactly what the visionaries and crackpots seem to want us to do.

We say that everybody needs a college education, that the demands of civilization require a college degree. If this Utopia could be established, who would barber our heads, repair our appliances, plumb our homes, and mow our grass as a means of livelihood? We are looking for an educational opiate, some kind of placebo, that will remove the inequalities of physique, of intellect, and of creativity. We know that this is an impossible goal, but we can fool ourselves into half believing it if we can get rid of tests and other objective yardsticks that tell us that inequalities exist.

Part of the problem rests on the shoulders of clinicians and teachers. It is their responsibility to clarify the role of testing and to help parents and the lay public to understand what tests are and the purposes they fulfill. There is a big distinction between screening and diagnostic tests, and teachers and clinicians must differentiate these two types. One example will make this clear: the California Mental Maturity Test and the Otis Intelligence Scale are vastly different from instruments such as the Wechsler Intelligence Scale for Children or the Stanford-Binet.

Another mistake that is often made by teachers is reporting children's specific IQ scores or their grade levels of achievement to parents. A clinician automatically allows for the probable error of measurement when he looks at a test profile. But parents have not been trained to do this, so they are confused when an IQ obtained this year is several points above or below what seemed to be the case last year. As teachers and educators, we must learn to report test results in general terms, to present them as indicators rather than as magic scores with exact or precise meaning. Our job is to clarify and interpret instead of confuse and disturb.

In many cases, our teacher training institutions have not lived up to their obligations in respect to the courses they offer about testing. It is not enough to give a smattering of theory and a course or two in the use of a few tests. The teacher zips through a few education courses and feels qualified to administer and use tests. This is certainly one situation in which a little knowledge is a dangerous thing. If teachers cannot use tests effectively, if they misuse or abuse them, the blame must be placed upon the college where the teacher was trained or rather, was not trained. Our colleges must not only teach the how's, and the why's, and the when's of testing both theoretically and practically, but also the limitations of testing and the most constructive ways that test results can be interpreted to parents.

Another indictment of testing that is less often publicized is that too little use is made of test results. Much more important than grade levels or IQ scores are the uses to which they are put. Aside from any value they may have in group comparisons, their major use to us as teachers and clinicians should be in the field of individual differences. It may be of interest that this particular teaching method seems superior to another, but as parents and teachers we should be more concerned about Johnny's specific needs, aptitudes, and potential and how effectively they are being utilized. We need more administrative flexibility and versatility in our test programs if we are to deal constructively with individual differences.

Finally, we must accept the fact that teachers and clinicians are entrusted with the responsibility of the educational welfare of the child. If you have ever talked to a disgruntled parent, you know that this responsibility is placed squarely upon you, and you tend to react defensively or apologetically. The parents may be wrong in their particular allegation because they are either misinformed or only partially informed, but they do not hesitate to dictate or even threaten. Instead of forthrightly facing the issue, the teacher or clinician meekly and weakly defends what is being done. It is time that we showed a little backbone. If we must accept the responsibility for the educational welfare of the child, we must then insist on doing what we believe to be best for the child. And we should not hesitate to say that if we are being held responsible for a child's academic achievement, then we must have the authority and control to promote it.

Medicine traveled a long way from witchcraft to its present art and science. Without measurement, without the broader advances that each significant step forecast, there could have been no scientific progress in medicine, in industry, and—may I say it—in education.

What we need today is not fewer tests, but more tests and better tests as we forge ahead to new frontiers in education. Let us evaluate what we are doing. Let us analyze each individual in terms of his potential, his abilities, and his needs and give him the opportunity to attain his greatest self-realization. By doing this we contribute our best to the individual and he contributes his best to society.

3. Evaluation of Materials for Reading Instruction

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THERE ARE several reasons why I chose this topic for discussion at this panel meeting. Probably the most important of these reasons is that under the Elementary and Secondary Education Act, school systems in all parts of the country are receiving large sums of money for improvement of reading instruction. Much of this money has been and will be used for purchase of new and improved materials in unprecedented quantities. College reading consultants are being deluged with urgent requests from administrators in local school districts for advice and assistance regarding the purchase of reading materials and equipment. Since January of this year I have conducted workshops at Auburn University for fourteen different county and city school systems which have received grants for Title I projects in reading. A considerable amount of the time in these workshops has been devoted to demonstration, discussion, and evaluation of various materials for both developmental and remedial reading programs.

There are certain general principles regarding evaluation which might be useful to anyone charged with the responsibility for selection of reading materials.

The goal or objectives of the school should most certainly be considered when evaluating materials for possible adoption in the reading program. Materials for reading instruction should lend themselves toward achievement of whatever outcomes have been listed as desirable in the curriculum guide or course of study used by the school system. It would be both unreasonable and unrealistic, for example, to expect teachers to achieve success in an individualized approach to reading instruction if books were not available in the quantities and of the types needed for such a program.

The composition of the student body should be taken into consideration when evaluating reading materials. Books that might be suitable and appropriate for certain pupils might not be nearly as useful for other pupils. There are schools located in high socio-economic suburban areas where the vast majority of the pupils have, since birth, enjoyed many advantages of a cultural or literary nature that obviously have not been available to the children in an impoverished rural area or a city tenement district. Regardless of how we may feel about the justice or fairness of this situation, it seems obvious that certain materials which could be used successfully in one of these schools might not be nearly as successful in one of the other schools.

Still another factor to be considered in evaluation of materials is the professional competency of the teaching staff. In the final analysis the success or failure of practically all materials is closely related to the skill of the teacher using those materials. Good teachers seem to be able to improvise and supplement in such a way as to achieve maximum usefulness out of whatever materials they might happen to have. I hasten to add, however, that these same good teachers might be even better teachers if they were provided with better materials. The fact should not be disregarded, nevertheless, that the materials themselves are not going to teach children how to read; teaching is accomplished by teachers. If the teachers do not have the training, experience, or background for making effective use of certain reading materials, then some provision should be made for providing the necessary training. Otherwise, it might be wiser to select other materials which could be used more effectively.

In evaluating materials for use in the developmental program, care must be exercised to insure that a sequential program of skill development is provided. Teachers within the same school need to coordinate their work in order that they may be sure there are no gaps in skills development.

Although the principles of evaluation governing selection of materials for the developmental reading program might be applicable in the selection of materials for the remedial program, it does not necessarily follow that the same criteria should always be followed for both programs. No one has been able to improve upon the criteria for evaluating remedial materials proposed by Miles Tinker in his book, *Reading Difficulties: Their Diagnosis and Correction,* which he coauthored with Guy Bond. They are as follows:

1. The materials must be suitable in level of difficulty.
2. The materials must be suitable in type.
3. The materials must be at the appropriate level of interest and format.
4. The materials must be abundant. (There should be ample materials for remedial instruction and for independent reading *(1)*).

Textbook committees charged with the

responsibility for evaluation of basal reader series for a developmental reading program will find helpful the checklist developed by Mary C. Austin and Mildred H. Huebner in conjunction with Clifford Bush. This checklist may be found on page 114 of their book *Reading Evaluation* (2). Among the items included in this checklist are an appraisal of the skills program, the format, the content, and the readability of the series. The authors point out that textbook committees need to make careful comparisons, keeping in mind the purposes and the philosophy of the school for which the selection is to be made.

One last item which must still be taken into consideration, even though many schools *have* recently received large amounts of money under the new Federal program, is the matter of cost. Certainly, no one, and least of all the taxpayers (which all of us certainly are) wishes to see these funds wasted. Careful consideration should be given to the relative cost of various materials when making the final evaluation.

In summary, the evaluation of materials for reading instruction is a matter which calls for the best efforts of both administrators and teachers. The aims of the school program, the competency of the teachers, the composition of the student body, and the cost of the materials should all be given careful consideration when making an evaluation of materials for reading instruction.

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4. Establishing the Instructional Level

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THE EFFECTIVE teaching of reading depends upon the appropriateness of the instructional materials. These materials should be easy enough for the pupil to read successfully and at the same time difficult enough to challenge him. Too often improper instructional level dooms the child to failure. If word recognition and comprehension skills are to be taught successfully, they must be taught in materials the pupil can handle.

Adjusting a pupil's instruction in reading to his specific needs necessitates an evaluation of his reading abilities through a variety of means. Evaluation should be comprehensive, detailed and aimed toward the objectives of instruction. The classroom teacher needs practical techniques and procedures for appraising reading performance. Techniques to be used in evaluation will depend upon the particular skill to be appraised. Data obtained from such appraisals and appropriate evaluation of them will help the teacher to select proper materials and plan her instructional program. Many types of information are needed by the classroom teacher for her to be aware of the pupil's pattern of growth in reading. The most useful information is derived by various techniques such as standardized tests, informal inventories, cumulative records, teacher observation, and questionnaires. The technique discussed here is the informal inventory.

Informal Reading Inventory

Several procedures in determining the instructional level have been suggested by authorities in the field of reading. Many teachers use an informal reading inventory to assess the pupil's reading abilities and disabilities as he reads at several difficulty levels. The instructional level is the highest level at which the child can do satisfactory reading under teacher guidance.

Educators are aware that evaluation should combine the use of both formal and informal procedures. The informal inventory is not an exact measure of the pupil's reading, but when used with discrimination it offers more useful information in a shorter period of time than can be obtained from standardized tests.

Materials

The type of materials used should be a series of carefully graded reading textbooks. The teacher should have duplicate copies of each book on the various difficulty levels. It is likely the teacher could use a typed copy of the selection to be read. The difficulty level of the materials would range from pre-primer level to the highest level a pupil is likely to read. The teacher selects the books from the range most likely to be appropriate for the pupil being tested.

She should prepare comprehension questions on the sample of the story to be read from each book in the series.

Selection of Stories

The teacher should select a story in each book in the series at least 20 pages from the beginning of the text. The selection should contain approximately 100 words. This can be done at every level with the exception of the pre-primer level. It is likely the teacher would have to make a selection nearer the beginning of the book for this level. The selection read in a pre-primer would of necessity be one which contained fewer than 100 words.

Preparation of Questions

Questions should be prepared before the administration of the inventory. They should be prepared in multiples of four for ease of scoring. Four questions are usually appropriate at the first-grade difficulty level. Eight questions are usually used at higher levels. If the selection contains more than 100 words and is more informational, twelve questions may be used. These questions constitute the comprehension check on the material.

Questions should be prepared to include some factual, vocabulary and inferential or thought responses. The teacher should remember to formulate questions which are based upon the reading material rather than on experience. No "catch" questions should be used. State the questions so that exact wording of the story is not necessary. In most instances avoid the use of questions that require a simple "yes" or "no" response.

The role of teacher judgment in the making of good questions is an important one. She should consider whether the points selected for questioning are the important ones in the selection. It is wise to try to avoid the use of unimportant detail as a basis of questions.

After sets of questions on the books to be used have been formulated, the teachers may revise them as use proves that certain of them are inappropriate. A good set of questions may be used over and over with different children.

Criteria for Success

The instructional level is the highest level at which the child meets the two criteria for success. These criteria are that he comprehends at least three-fourths of the main ideas within the sample and does not miss more than one in each twenty words in the materials read.

After silent reading of the material the pupil should answer three-fourths of the questions correctly. The word recognition criteria are based on the number of words on which the pupil requests help as he reads silently and on the words he missed while reading orally the same selection.

To get the total word recognition count, repeated misses and proper names are not counted. For example, if the pupil misses the same word in both silent and oral reading, it is counted only one time.

There will be times when the pupil meets the two criteria for success at a given difficulty level and the teacher feels that a lower level is more appropriate for instructional purposes. Even though he comprehends three-fourths of the main idea and does not miss more than one in twenty words, the pupil may show many symptoms of poor reading. He may read word-by-word, appear to be tense in oral reading, and whisper or move his head during silent reading at the highest level of success. It would seem indicated that a lower level should be used for instruction. With a choice between two levels, the teacher should decide upon the lower level in most cases. After a short instruction period, it is likely she can move the child to the higher level.

Estimating Starting Level

The role of teacher judgment is an important one in estimating the starting point of the inventory. The teacher wants a difficulty level which would assure the child success for the first book. If the teacher knows the last level at which the child was instructed, she may use this as an appropriate beginning. Should this first level prove to be too difficult, the teacher would always shift to a lower level.

Series to Use

If the teacher is attempting to estimate the pupil's general level of reading, a series unknown to the pupil may be used. If she is attempting to determine the book in which the pupil should be instructed, then she would use the series being taught in the classroom in her reading groups.

Time of Administration

An experienced teacher usually can administer the inventory in 15 to 20 minutes. It is likely that during the first few weeks of school, a part of the reading period may be used for testing. The teacher may arrange independent activities for the other pupils while she works directly with one pupil in giving the inventory.

All pupils will not need an informal reading inventory. It may be used with pupils about whose reading instruction level the teacher is in doubt. If the teacher does not have adequate information about some of the children who transfer, the informal inventory will be very useful.

Administration Procedures

The administration procedure would be the same for a selection from each book within the series.

1. Give a quick introduction for the story and then say: "Read this part of the story silently and remember what you read because I will ask you some questions about it. If you come to a word you do not know or can't figure out, I'll be glad to help you."

   During the time the pupil is reading silently the teacher will observe and record any symptoms of poor reading. She gives help on word pronunciation if the pupil requests it, and records these words.
2. Remove the book and ask the comprehension questions. Responses are recorded.
3. Ask the pupil to read orally the same selection. The teacher checks an oral reading checklist for any symptoms of poor reading. The words mispronounced by the pupil are recorded.

If the criteria for success are met in the first selection used, the next higher level should be tried. This continues until the pupil fails one or both criteria.

If he fails on the first selection used, then the next lower level is used.

Guide Sheet

Teachers may develop a check sheet or guide for recording the results of the informal reading inventory. One sheet may be used for four selections read by the pupil. Silent reading and oral reading checklists should be included. Space should be left for notes made by the teacher about the pupil's word recognition skills.

Conclusion

Growth in reading is a continuous process. For the pupils and teachers to benefit from evaluations of reading progress, many techniques must be used. One of the greatest difficulties facing teachers in the public schools is that of adjusting to the reading levels of their pupils. To establish the instructional level of a pupil, informal appraisals may be used. In evaluating the results of an informal inventory, the teachers should be aware of many other appraisal devices to be used. No one informal inventory should be used without supportative information from many sources.

5. Developing a Scale to Determine First Graders' Attitudes Toward Reading

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FOR SEVERAL years, a growing number of research studies has attempted to determine the most efficient methods of teaching reading skills. Some researchers have concluded from their results that one method or another was superior and therefore should be adopted. One wonders whether a major factor has been omitted. Have we really attained a desirable objective if, as a result of our skills development program, a first grader has learned to dislike reading?

The most common practice in conducting research in first grade reading has been to draw conclusions from data derived from an achievement test given late in the year. This can yield very superficial results, for our ultimate objective is not merely to develop first grade reading ability, but rather mature reading ability. The results are deceptive, then, in that a method may show superior skills development (on a first grade level), but in the meantime may have inculcated such unfavorable attitudes toward reading that the child will do as little reading as possible. It is a cliché to say that one learns to read by reading, but it is surely true that the child who has learned to dislike reading has little chance of developing into a mature reader.

Development of the Scale

During the 1964-65 school year, under the auspices of Kent State University, we conducted a comparative study of the effectiveness of certain approaches to the teaching of reading in first grade. This study was carried on in the 22 first grades in the public schools of Massillon, Ohio. In order to provide an indication of the attitudes which were developed as a result of these approaches to teaching reading, we developed an attitude scale.

We considered a number of types of scales, and seriously considered the use of some projective technique such as incomplete sentences or pictures. We rejected these techniques for several reasons. First, projectives probably are too complicated for use in the first grade classroom. Also, scoring would likely be difficult and of doubtful validity. Finally, such complex procedures probably are not necessary for most six-year-old children. Those who have worked with young children know that they can be embarrassingly honest without the need for subtlety.

We decided, then, that the most fruitful approach would be to devise a group of statements which would be indicative of factors associated with attitudes toward reading. In order to avoid complication, we used statements which could be responded to with a yes or no answer. A large number of statements were prepared, largely by Miss Seifert, with the assistance of Mrs. Mary Boehnlein, and these were then administered to the first graders in the University School of Kent State University. As a result of this pilot administration, a group of 25 items was chosen as being correctly understood by the children and having sufficient surface validity and reliability to be used in the larger study in Massillon.

A preliminary set of directions for administration had been prepared for the pilot administration. Before final administration, however, it was necessary to devise more complete and dependable directions. This was done with the cooperation of Dr. Philip Merrifield, Director of the Bureau of Educational Research, Kent State University.

The final form was administered to 549 first graders in Massillon, Ohio by Miss Seifert and Mrs. Boehnlein. Answers were indicated by the child by merely circling "yes" or "no" after each orally administered statement.

Statistical Analysis

Analysis of the results of this administration was completed by Dr. Philip Merrifield, Director, and Mr. R. G. Frankiewicz, Graduate Assistant, Bureau of Educational Research, Kent State University. Factor analytic methods were used to determine inter-item correlations. Three factors were identified as follows: (1) "liking for reading," (2) "confidence in reading," and (3) "preference for oral reading." The factor "liking for reading" included 15 items with a reliability of 0.71. The analysis was reported in detail at the 1966 Convention of the Council for Measurement and Evaluation in Chicago.

No claim is made that this is a highly refined instrument. On the contrary, the test is still in the process of development. We have evidence that it is a useful measure, particularly for research purpose.

We hope to add to its reliability and provide sufficient standardization so that it may become a useful tool for the classroom teacher.

Uses of an Attitude Scale

As indicated above, a scale to determine children's attitudes toward reading should have great value to reading researchers. No study of children's reading which ignores their attitudes can be considered really complete. We hope that we can help fill this void.

The measure should be very useful in the evaluation of the effectiveness of a school's reading program. School administrators, supervisors, and teachers surely would like to know what kinds of attitudes are being developed by their schools' reading programs. This may, of course, include the evaluation of materials.

However, the most valuable application of such a scale should be as an aid in the individual diagnosis of reading difficulties. The effect that a dislike of reading has upon the development of skills has been observed by all of us. Breaking the vicious cycle of poor attitudes and underdeveloped skills has been a difficult and continuing problem. More specific information concerning the attitudes should be very helpful.

Summary

The need for a scale to determine children's attitudes toward reading seems to be evident. We believe that we have made promising progress in the development of such a scale. When we can refine the instrument, it should be of notable value to researchers, administrators, teachers, and clinicians.

6. Diagnosis of Reading Difficulties by the Classroom Teachers

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THE PURPOSE of any reading diagnosis is to define the nature of a reading difficulty and to identfy conditions which may be inhibiting a person's progress in reading. Diagnosis in the classroom is necessarily different from that performed in reading or educational clinics in aims, procedures, and depth.

Diagnosis is an essential step to be taken by a teacher of any class in which poor readers are enrolled. It gives direction for needed instruction so that each student can develop his reading in harmony with his potentiality. Without diagnosis, the teacher may either miss important gaps or over emphasize skills which students already possess. Therefore, time is saved and frustrating experiences are avoided for both teachers and students because instruction can be focused immediately on the specific skills needed.

To determine how teachers from the primary grades through college diagnose reading difficulties in the classroom, 109 questionnaires were sent to people who had received their training in one of 14 universities. Of these questionnaires, 74 were completed and returned. Many of the suggestions reported in this paper were made by one or more who returned the questionnaires.

The term *classroom* refers to a teaching situation in which groups of students are instructed and in which some or many of the students have reading difficulties. Because these classrooms may be at any educational level from first grade through college seniors, there will naturally be variation in specific diagnostic procedures which are used. Principles for diagnosing which apply at any educational level will be presented. Examples of techniques which might be used to analyze various kinds of reading difficulties are also included.

Principles of Diagnosis

The following principles appear applicable at any educational level:

Diagnosis is the initial step in the correction of reading difficulties and should precede reading instruction. This principle does not imply that a complete, intensive diagnostic examination will be made of every student who has reading difficulties before remediation can begin. It does mean, however, that weak areas in reading which need strengthening and strong areas on which to base instruction should be identified early.

Most of the teachers queried did their initial testing in the fall just after new classes began. Some diagnosed in the spring so that they could begin remedial instruction early in the fall. The majority of the special reading teachers had set aside a period of time each week for additional diagnostic work.

Probably an analysis of the results of standardized tests recently administered is the quickest way of identfying general problem areas of reading. At the same time, the classroom teacher should have the results of mental capacity tests so that she can determine how well students can be expected to read. Since group intelligence tests may reflect reading achievement and not the capacity of poor readers, classroom teachers may wish to administer formal or informal listening tests to give them another basis for comparison than intelligence tests provide. If a student is correctly identified as a slow learner and reading as well as he is capable of doing, there would be no need to continue the diagnosis; for he is developing in reading in harmony with his ability to do so.

Diagnosis does not end with the initial investigation but is continuous. As they work with students, teachers may find new, different, or additional reading needs than they did in the original testing. As success is gained in reading, students' needs naturally change.

Teachers have many opportunities to continue diagnosing as they teach. Probably one of the most effective procedures to be used for continuous diagnosis is the teacher's day-by-day observation of skills, reactions, and interests of her students. Such observation increases the teacher's insight into the problems as they occur.

Informal tests, devised and used by teachers, are often more meaningful to teachers than formal tests because they have been chosen to assess aspects of reading which are of prime importance to students at particular times.. These may be informal oral or silent reading checks which reveal specific weaknesses in reading.

The extent to which diagnosis is carried out is dependent upon the numbers and kinds of reading difficulties of each student. It is neither necessary nor desirable that all students have the same amount of testing. Only an informal reading inventory may be required to check the kinds of problems one student has. In this case, instruction can begin immediately because the basic problem has been located. Several tests or observations may be needed for other pupils because their difficulties are not readily identified. For very severe cases specialized diagnosing in a reading clinic may be necessary. In any event, diagnosing should be conducted until the major or basic problem is determined; this means that different kinds of evaluation procedures will be used with different students in different classrooms.

A variety of procedures should be used, and teachers should know the advantages and limitations of each. They should be familiar with many kinds of standardized tests, informal testing procedures, and conference and observational techniques. Teachers should know which ways of diagnosing are the most appropriate and useful and which yield the most information under different circumstances.

Standardized tests should be used if teachers wish to compare the performance of their students with others in the nation or to locate gaps in reading. Standardized tests are often the quickest way to gain the most information about several students at one time. If these tests are hand scored, teachers have an opportunity to analyze the responses and see weak and strong areas for the individual as well as the group.

The values and limitations of standardized tests must be understood by teacher. Tests in themselves are not diagnostic. They become valuable only when someone attempts to relate the results and the kinds of errors made to other information about the pupil. It should be remembered that standardized tests are samples of behavior, and measure only what a person does at a particular time and place. In addition, teachers should be aware of the fact that results often represent frustration levels and not instructional levels for many pupils. Since it is impossible in standardization procedures to include all kinds of populations, in many cases the norms are not appropriate for particular groups, such as the economically and culturally deprived children. Unrealistic time limits are handicapping features on tests for many retarded readers. Nevertheless, if teachers recognize any limitations of tests which they use and learn to make appropriate interpretations, they can gain much important information and can supplement standardized tests with informal measures if they prefer.

Informal tests are definitely useful in classroom situations. This type of assessment is necessary because no standardized tests are available or are satisfactory to assess certain skills, such as previewing, critical reading, skimming, etc.

Several kinds of informal tests for analyzing word recognition skills can be used. The most familiar and the most popular among the teachers who responded to the questionaire was the informal reading inventory, such as those by Betts *(1)*, Smith *(4)*, and Botel *(2)* or those assembled by teachers from basal readers or other graded materials. Teachers also use graded word lists, randomly selected words from different levels, or selections from basal readers, trade books, or text books to determine word attack skill needs. Reading for diagnostic purposes should always be done with only the teacher as an audience.

A tape recorder can be used so that oral reading can be recorded and later analyzed and reviewed. The University of Chicago Reading Clinic records oral reading on discs which are filed in each student's folder. This technique is particularly useful because recordings may be played at a later time to check progress and to make comparisons.

Word meanings, comprehension and critical reading skills, and study skills can be checked informally by several procedures. Materials from workbooks, trade books, basal readers, textbooks, or anthologies are appropriate for use in the diagnosis of silent reading problems, especially if well-prepared questions requiring insightful responses accompany the selections. Questions should not be limited to those having multiple-choice responses; some should be open-ended so that students can demonstrate their ability to think through problems. Tests can be devised to yield valuable information concerning how the student organizes and relates the ideas he has gained from reading, whether he can make inferences or generalizations, if he can evaluate information he reads in light of criteria established, or if he uses context clues to determine the meanings of words.

Teachers can appraise study skills in actual situations by asking questions which require the use of the title page, table of contents, index, or glossary; by asking students to interpret headings; by observing their facility in using encyclopedia, dictionaries, or other reference materials.

The third approach which may be used in diagnostic work is teacher day-by-day observations which alert teachers to any deviations from expected performance. Keen observation can reveal much concerning attitudes, reactions, and mannerisms of students; the skills they use or do not use; the amount and nature of their reading; the books which they can read easily and those with which they have much difficulty; and locational skills.

The teachers who were queried found the following kinds of information from school cumulative records to be useful, at least with certain students: (1) long periods of absence which may have handicapped the student, or frequent short ones indicating poor physical condition or truancy; (2) the number of schools attended; (3) reports from special personnel, such as the school nurse or psychologist; (4) test information from previous years; (5) rating on conduct, effort, personality traits; (6) personal data, such as birth-date; (7) teacher comments from parent conferences; (9) grades; (10) steps taken to correct the reading problem; and (11) the progress students have made.

Through conferences with the students, their instructors, and their parents, teachers can obtain valuable information about previous instructional methods used; about the child's behavior, his interests, and his attitude toward reading; and his home conditions.

The usefulness of informal procedures

depends upon the experience of the teacher, the number and kinds of observations made, the degree to which the observations and testing situations are unbiased, and the relevance of the information to the understanding of the reading difficulty.

Diagnosis should be systematic. First, it is necessary to investigate each student's basic reading skills. From the scores on standardized silent reading tests, the student's weakest areas in reading should be determined. Although subtest scores may sometimes be of limited reliability, low scores indicate trouble spots which should be further investigated so that specific problems can be pinpointed.

To keep diagnosis systematic, teachers must know the types of skills which students need to improve at their particular stage of educational development. They should also be familiar with developmental reading at all levels so that they know how skills are developed sequentially. Many teachers prepare their own check lists of skills for either individual students or the entire classroom. The most useful check list to be used in relation with diagnosing is probably the group survey chart in which the skills the teacher is particularly interested in exploring are listed in a column on the left hand side of the page with the students' names placed at the head of columns at the top of the page. This check list, kept on a clip board, provides a place for quick recording of skills which need development. Just as such a procedure aids in making diagnosis systematic, so it also helps to make instruction systematic.

The teachers responding to the questionnaire kept useful records in various other ways: daily logs; notes on progress, attitudes, or behavior which were placed in students' folders; notes in plan books; and lists of progress in the attainment of skills, such as number of words known or number or words read per minute.

It is the responsibility of all teachers to diagnose reading difficulties which might interfere in the understanding of the subject which they teach. Content area teachers can analyze textbooks and other instructional materials to determine what reading skills are necessary for the understanding of the subject which they teach. They could ask their students to read similar materials to those in the regular curriculum and to answer questions which are representative of the ones students will be asked in class, or on the materials which they normally read. The items or questions could be arranged in order of difficulty. Content area teachers can observe their students to determine how they attack assignments, how they organize materials, and how they use study skills relevant to the subject they are being taught. Technical vocabulary deficiencies should also be explored informally.

Classroom diagnosis should include an investigation of factors which may be inhibiting growth in reading, especially for those who are severely retarded in reading. Because reading teachers do not have the technical training to diagnose visual or auditory problems, they need to use screening tests to aid them in making referrals. Check lists such as the one by Knox *(3)* for visual problems are useful guides if screening tests are not available. Some schools have specialists on their staff, such as psychologists, nurses, social workers, speech therapists, etc., to help the classroom teacher in identifying factors which might hinder the progress in reading. Some schools are less fortunate and must depend upon outside sources for help. Knowing referral agencies and procedures for making referrals is important to the teacher who works with retarded readers. A combined effort from allied disciplines and the classroom teacher may be needed in some cases.

Concluding Statement

The foregoing seven principles for diagnosis in the classroom imply that teachers must have a knowledge of the reading process, insights into the meaning of test results, and the ability to get the most information from the procedures chosen. The difficult, but most important part of diagnosis, is the relating and interpreting of the findings from the different procedures used, not the measurement itself. There are no magic tricks or easy formulas which can be used to determine the nature of the reading difficulty. Training in reading and experience in working with retarded readers will help the teacher to diagnose reading difficulties efficiently and effectively.

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7. The Evaluative Program: Ends and Means

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WHERE does the evaluation program in reading begin? What does it include? These questions can be answered for any school or clinic only in terms of the objectives of its total reading program. If there are only limited instructional goals, there is no need for complex evaluative procedures. A program with broadly conceived goals, on the other hand, requires much more extensive evaluation. For purposes of this article, the place of evaluation in the latter type program will be considered.

A comprehensive reading program begins with the preschool child and carries him through to maturity. Its emphasis falls on the developmental program. Its focus is on optimal achievement for each child —equality of current abilities and capabilities. It deals with a broad spectrum of specific attitudes, skills, and abilities, with the purpose of having each individual able to handle meaningfully a wide variety of types of reading materials. Because no preventive-developmental program can achieve one hundred percent success in eliminating all retardation in reading, a comprehensive program also provides corrective and remedial instruction when it becomes necessary.

Within this context, the evaluation program must begin with appraisal of readiness for learning in reading, rather than waiting until it is time to measure actual achievement. It must be concerned with the child's potential for achievement, his status in relation to the various factors which might influence his learning efficiency, his specific strengths and weaknesses as he begins to deal with printed materials, etc., not merely with his general levels of achievement in comparison with other children of his age or grade placement. The major aim of the program should be to provide the information needed for the formulation of the best possible instructional plan for each child. All other purposes are secondary.

Too frequently, an evaluation program in reading is thought of as including only such things as standardized and informal tests, or teacher ratings as reflected on report cards and in cumulative folders. The true scope of a good evaluation program is much greater, with tests and "marks" comprising only a minor part. These are given only occasionally, either when it is a routine matter in school procedure or when some special need is evidenced. Teacher observation and diagnostic teaching, however, must be a continuous process if the total reading program is to meet the evolving needs of the children. Tests might better be thought of as a means of checking on or extending information the teacher already has, than as the primary source available to him.

The program of evaluation in reading, then, should ideally encompass the total range of the educational program, from its lower to its upper limits. In addition to reading achievement, it should deal with general and specific capacities and all factors related to progress in reading. It should be concerned not only with arriving at some sort of designation of the level at which the child can function, but also with determining specifically what things he is able to do and what things are troublesome to him. The major strength of the program should be the educated observation of the child by the teacher as he functions daily in reading situations, with tests of various types adding precision to these observations. All of this should be for one principal purpose—to see that the child is adequately prepared to succeed when he begins his initial reading experiences and as he takes each step beyond that to maturity in reading ability.

For the sake of brevity and specificity combined, the purposes of evaluation which forms the basis of the plan for instruction have been organized below into four main groups, covering potential for achievement, readiness for learning, current achievement levels, and specific strengths and weaknesses. Where it is pertinent, uses of the information for purposes other than planning instruction have been included.

Determining Potential for Achievement

The basic comparison to be made in the reading evaluation for each child is between his current achievement and the point he could reasonably have been expected to reach. To make such a comparison demands that the evaluative procedures result in an accurate appraisal of his general capacity. Estimates of the child's potential can be obtained through both tests and observations.

Tests of capacity. Two principal types of tests deserve consideration as possible sources of information on the child's potential for achievement in the reading area. Intelligence tests of one type or another are probably most commonly used for this purpose. In interpreting the obtained results, one must attend to such questions as these: "Was the test a group or an individual test?" or "Were both verbal and non-verbal items included?" or "Was the child's performance an even one or did he show great variation from one section of the test to another?" Beyond the basic primary levels one must ask directly, if a group tests was given, "Was the intelligence test in actuality a reading test?" Many are! Less frequently used are specific reading capacity tests, working generally on the theory that a child beyond the stage of initial instruction should be able to read for himself what he can understand when it is read to him.

Certainly either of these types of tests could help to provide a basis for determining the child's potential for achievement in reading. However, neither must be looked upon as setting the exact point at which the child should be functioning at the moment or revealing only that. Instead, the results of any of these capacity tests must be viewed as providing the raw material with which a trained examiner might work to form a judgment on realistic expectations for the child. Even if the child has an IQ of exactly 100 on a good individual intelligence test using both verbal and performance type items, it may not be true that he has the potential for only very average achievement. His "normal" intelligence may be made up from a very superior performance on the verbal items and a below normal performance, because of a specific disability, on the non-verbal. In this case, the specific disability might well be one which would not deter his progress in reading and a superior level of achievement might be expected. On the other hand, a child who has suffered a language handicap might also have an IQ of 100 on the same test, with the very superior level on the performance items and the below average on the verbal. In his case, one should think of a potential for very superior performance in reading, but only when he has been helped to overcome his language handicap. This kind of examination of specific responses and areas of response would become even more essential when a less comprehensive intelligence test was used, or when potential was being determined by a hearing comprehension tests or another approach to reading capacity per se.

Observations of General Functioning. Within and without the classroom there are many opportunities to appraise a child's potential for achievement. How successfully does the child operate in class discussion, in formal and informal listening, and speaking situations? How does he go about solving problems he faces in his daily living? How competent is he in performing in areas of particular interest to him?

When a child is observed to do well in circumstances such as those indicated, there is definite evidence of his potential for achievement. Marked disparaties between what he does otherwise and what he does in reading should be looked upon as evidence of some problem with meeting the specific demands of the reading situation. If he has the capability to achieve, why is he not doing it in reading?

Appraising Readiness for Learning

Not only at the pre-reading stage, but rather all along the line to maturity, the child's readiness for learning must be evaluated. The question becomes "How ready is he to realize the achievement levels his general potential indicates he could reach?" This actually means an appraisal of his adequacy in all the areas which will affect the degree to which he can use his potential. His background of experience and information, oral language reservoir, vision, hearing, general health, emotional status, attitude toward learning (and so on through almost countless factors) will all influence his learning efficiency.

Tests of readiness. In some of these areas there are standardized and informal tests which can be used in the classroom or clinic to provide fairly definitive answers on the child's readiness for learning. They range from group reading readiness tests, which have been standardized and can be administered rather easily, to highly individualized and extensive auditory discrimination, memory span, or projective personality tests. In other areas, the services of a vision specialist, speech clinician, or pediatrician might be required to get the necessary information.

Observations. Two functions can be served by observation in these areas. Some vital information can be gotten in each area by direct observation of the child in a variety of situations. Is his memory span too short to allow him to follow three oral directions, even though he listens very intently as they are given? Does he begin each new activity with a statement that he won't be able to succeed? Does he cover one eye as he looks at the printed page in front of him? Is he wide eyed at seeing something which is quite common to the others in his class?

Frequently however, the observations lead to, rather than answer, questions. They result in referrals for more thoroughgoing examination to determine whether or not a problem exists in a particular area and what corrective measures can be taken if one is present. The school or clinic evaluation program can not "go it alone." It must be part of an interdisciplinary program to assure maximum learning for all students.

Finding Current Achievement Levels

To begin where a child is, one must first locate him exactly. In reading, this means finding the kind of material in terms of difficulty level with which he can most profitably work. At what level is he ready for instruction? Where can he function in his independent work?

Tests of Achievement. Group standardized tests will not serve to get this kind of information. The best one can hope for from them is an estimate of the child's relative standing in comparison to that of his peers. Even some standardized individual tests give basically this same information, even though a keen observer might also get other ideas as he uses them. An informal reading inventory technique, on the other hand, has in its design a focus on the evaluation of the individual's competence in dealing with materials at successive levels of difficulty until it is determined where he can read effectively without help, and where he can profit from instruction. Either groups or individual settings can be used for these informal tests.

Observations. Although the inventories should be considered basically observational techniques, less structured observations can also provide information on levels of achievement. Each instructional situation in the classroom and each independent activity in which the child engages should be considered a source of diagnostic information. What sort of problems does the child encounter? What materials does he choose for himself? How much help does he need as he works? Questions of this type can reveal evidence about both his instructional and his independent level.

Uncovering Strengths and Weaknesses

The job of finding the actual strong and weak points in a child's reading performance should be done at or near his instructional level. It is here that he will show what he can do and reveal his needs. Below his instructional level, needs are at a minimum. Above the instuctional range, he may be unable to use abilities he has developed. For this reason, direct observation of his actual reading performance, rather than the administration of a formal test, seems the best hope for real diagnostic study of his reading per se. Checklists of appropriate abilities for the particular level or signs of trouble which might be observed can certainly be helpful in guiding the observation. In the final analysis, however, the diagnostic study is dependent on the observer's knowledge of what is required of the reader for adequate performance with the material, and his ability to check on the adequacy with which the demands are met.

The ultimate aim of the evaluative program cannot be reached until this truly diagnostic study is made. No sensible plan of instruction to further the student's development can be evolved until the teacher knows on what the child can build and where he needs to go next. Thus it becomes apparent that the program of evaluation in reading is useless unless it reaches this stage. To arrive at the point of systematic and thorough evaluation of specific strengths and weaknesses would in itself be fruitless, if not impossible, without covering the other areas which have been mentioned. When reasonable expectancies have been established, and the student's readiness for reaching this expectancy level determined, his current levels of achievement and his specific strengths and weaknesses can be found in a meaningful fashion. Only then can appropriate instruction be organized so that he will be able to move on toward optimal achievement.

8. Evaluation of Instructional Materials

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WITH LARGE sums of money now available to the public schools through the Elementary and Secondary Education Act, one of the chief problems facing school personnel responsible for developing reading programs is that of selection of materials from among the proliferation of publications now available. There are probably more texts, workbooks, gimmicks, and gadgets available in the field of reading than in any other single instructional area. Nor is there any shortage of self-styled experts who are quick to produce and promote cure-alls for their pet peeves in their own publications. With education now in the realm of big business, industry is entering the field of publishing, and production of the quantity and variety of instructional material is now at an all-time high. In fact, educational media are being produced at a rate more rapid than our knowledge of how children learn to read and the reading process itself which should underlie any teaching approach or instructional tool.

This wealth of published materials now available is not without its curse, for one of our major problems is that of selection. Perhaps the magnitude of our problem would be somewhat reduced if publishers themselves were more selective in the manuscripts they accepted. Since this is not the case, the perpetual lag between current learning theory and current textbook materials will continue. Without evaluation, the progress of any reading program is retarded, since in many schools instructional materials constitute a resource which determines the quality of the learning experience. If we had more qualified personnel adequately trained in the field of reading, this situation would be less serious.

The first step in the selection of materials is to know what is available. Several references are useful as comprehensive compilations giving complete information on text and non-text materials now available. Among these are:

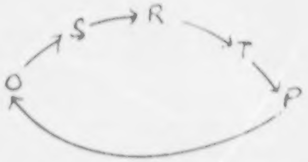
1. *Good Reading for Poor Readers.* George Spache. Champaign, Illinois: Garrard Press, 1964.
2. *Gateways to Readable Books,* fourth edition. Strang, Ruth et al. New York: H. W. Wilson Co., 1966.
3. *The Reading Improvement Handbook.* John Simmons and Helen Rosenblum. College Station, Pulman, Washington: Reading Improvement, 1965.
4. *Materials for Reading.* Helen M. Robinson, Editor. Supplementary Educational Monograph No. 86. Chicago: University of Chicago Press, 1957.

To avoid making blind purchases, the second step is to examine the instructional material to determine its quality, with specific reference to its purported purpose. To encourage a favorable view of his material, one author of a new series introducing a new approach to beginning reading urged me to examine it with "an open mind." Unless one's evaluation is based on knowledge, it seems to me that evaluation would proceed from an empty, rather than an open mind.

While there are many factors influencing evaluation of textbooks, this paper will focus on the psychology of reading as a point of departure from which evaluation should begin. Unless the printed material purported to develop reading ability is in harmony with a sound theory of reading, the quality of reading instruction is impaired, if not deleteriously damaged.

To clarify the components of the psychology of reading, Strang's construct will be summarized and also applied to textbook evaluation. Since any summary of a complex subject like the reading process must necessarily be brief and therefore tend to be somewhat superficial, the reader is referred to other source (12) for a more complete explanation of this subject.

According to Strang, "The modern psychology of learning views reading as more than the simple association of printed symbols with their meaning. It recognizes the complexity of the process." This complexity may be represented schematically as follows:



The Reader. "O stands for the person, whom the psychologists refer to as the organism. Reading begins with the reader." On his self-concept, maturation, mental ability, and background of experiences, will depend the quality and progress in reading development. Similarly, the reader's purpose and need for reading will influence the amount of effort he puts forth and thus influence his concentration and mind-set toward the reading experience. Accordingly, evaluation of instructional materials must be concerned with content that deals with experiences, problems, and knowledge appropriate to the learner's stage of development. Moreover, the vocabulary and language patterns employed in the text should be familiar, if not similar, to that of the learner's. Thus, interest, effort, and purpose will be evoked to result in further learning and reading.

Stimulus. "S stands for the stimulus situation. The reading material itself is the focus of the stimulus. Both format and content are important." Content here refers to what we teach when we give instruction in reading as well as to the subject matter of the printed material.

To promote independent readers, the text of instructional material is developed through the use of controlled vocabulary to assure systematic learning and progress. In the beginning, reading vocabulary similar to the familiar oral vocabulary is used to facilitate learning by proceeding from the known to the unknown. As word analysis skills are developed, reading vocabulary is extended, going beyond the familiar spoken language so that the learner uses reading to extend his range of language usage and knowledge.

Emphasis in vocabulary development should be on meaning and use as the primary unit in reading rather than on isolated sound and symbols. Perhaps a definition of the meaning of *word* will clarify the elements common to all words and thus identify the skills needed to read unfamiliar words independently.

(form)
A word is a *symbol* that has *meaning*
and *sound*
(structure)
and is an *independent* unit of speech.

An analysis of this definition identifies four elements common to all words: form, sound, meaning, and structure. Each of these elements has a corresponding skill: configuration, context clues, phonics, and structural analysis, all of which comprise word analysis skills. Therefore, any program of vocabulary development must include instruction in all of them.

In addition, an understanding of this definition will also discourage inappropriate application of certain rules. For example, if the unfamiliar word is *cat*, a common rule often used is "look for a little word in the big word." But the letters *a t* do not form a meaning unit or an independent unit of speech in *cat*. Therefore, it is not a word and the rule is ineffective. Think of the errors the pupils will make applying this rule to words such as *fathom, oat, dated, fatal*.

Equally important is the idea that instruction in reading should duplicate the way reading operates. Instructional materials then should give the reader experience in the process of reading rather than isolate any separate skill for drill before placing it into the content of reading. In this way, reading is taught the way it is used, as a thought-getting process.

Response. "R stands for the response to the stimulus. Both stimuli and response are more complex than formerly supposed. Reading materials presented in different ways bring different results, even with the same individuals."

In examining reading texts, teachers should concern themselves with analyzing the kinds of responses exercises elicit and their provision for individual differences.

There are two ways to provide for individual differences. One is to have a wide variety of published materials on different levels of reading difficulty. Another is to encourage a variety of responses within the use of a single text. Individual responses through this approach are derived from the nature of the question, the answers to which reveal responses which are different yet relevant. Here, the reading text is used as a point of departure from which everyone participates. Questions which elicit a single response or the same response from everyone are avoided. The emphasis is on discussion, the natural sequence of a reading experience, and not on conducting a quiz session.

Questions such as, "What color is Jane's dress?" are omitted since there is only one answer which is the same for everyone. On the other hand, a question such as, "Why is Jane a good friend?," invite everyone to participate. Such questions evoke a range of responses which must be supported by identifying clues in the printed text. Differentiation in responses as well as in types of material should be encouraged.

More opportunities for responses at strategic intervals need to be incorporated in instructional materials, since comprehension can be assessed only if there is a response in which behavior is changed.

Trace. "T refers to the trace left as a result of learning experiences. Proficiency in learning depends upon the retention of previous learning." Since in many instances the instructional materials will determine the quality of the learning experience, textbooks need to encourage teaching beyond the level of testing. If textbooks are filled with drills, rules, texts, and questions that encourage memorization of factual details, then the pupils will perceive reading as a threatening testing situation. To insure effective retention, texts should encourage an instructional approach which broadens the sequence of the learning process from just testing to the following systematic series of steps:

appraisal→ teaching→ practice→ review→ testing.

Moreover, both text and teacher should encourage the learner to become aware of the process which results in effective reading so that he may continue to improve long after formal education is terminated. Good readers are aware of the methods they use. Poor readers' understanding of their reading is vague and indefinite. Mass education demands that individuals assume responsibility for their own learning. Sound instructional materials will incorporate suggestions and procedures to achieve this goal.

Perception. "P refers to the reader's perception of the reading experience. His perception of each new reading situation is the resultant interaction between the reader and the stimulus." If relevant procedures are used to teach the content of reading and if the process of learning to read is a satisfying, useful experience, then the learner will perceive of reading as an enjoyable experience and approach each new reading situation with expectation. If the important thing about teaching reading is to see that children use it well, then this end should become a part of the means, making satisfaction and application a part of each instructional session. There should be no dichotomy between content and process or between learning and application. From the beginning, the learner's experiences with reading materials should contain all the elements characteristic of the mature reader.

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9. Learning Characteristics of Poor Readers as Revealed by the Results of Individually Administered Intelligence Tests

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THIS PAPER is an attempt to examine the performances of poor readers on intelligence tests in order to make inferences concerning the type or types of treatment which are indicated. The presentation has been divided into two major parts; namely, a discussion of the research reporting the performances of poor readers on various intelligence tests and an attempt to relate these findings to treatment approaches.

As can be seen from the title, this paper will treat only those explorations which have used individually administered intelligence tests as the basis for their data. In fact, most of the research reported in this paper has utilized the WISC (Wechsler Intelligence Scale for Children) or another of the Wechsler scales. However, when available, results from other instruments have been included, thus allowing the findings to be generalized rather than restricted to a single instrument. The other two instruments which are reported are the Stanford-Binet and ITPA (Illinois Test of Psycholinguistic Ability). The latter is a recently devised instrument which seems to offer a potential value for investigations into the verbal behavior of poor readers. A fourth instrument, the PPVT (Peabody Picture Vocabulary Test) was used in only one study.

The research inquiring into the intellectual patterns displayed by poor readers has tended to follow one of three procedures. One has been to compare poor readers with themselves. In this approach, poor readers' scores or subtests were compared with their total or average performance on the entire test. The results from this design indicate the strengths and weaknesses of poor readers when a comparison is made of the score on each subtest and the average score. Another plan has been to match good and poor reader groups on several factors, including total score, and then to compare the two groups on each of the subtest scores. The third procedure has been to select good and poor reader groups without any matching or equating procedures but to restrict the range of IQ scores. When this approach is used no subjects with IQ's of more or less than a predetermined value are included. For example, only subjects with IQ's between 85 and 115 are included among either the poor or good reader groups.

Since the three procedures have tended to yield similar findings, and because our time is limited, no attempt has been made to identify the experimental designs of each of the various studies. However, the fact that references to strengths and weaknesses of poor readers are often in a context of relativeness, not absoluteness, should be kept in mind.

Review of Research

Probably because the Stanford-Binet is based on a global concept of intelligence, there have been only a few studies of the performances of poor readers on specific tasks. The findings of those few studies are similar, and can be summarized briefly. Poor readers did best on those items which involved visual memory, auditory memory of meaningful material, and some reasoning items requiring little verbal production on the part of the examinee; they did most poorly on those items which involved defining words, auditory memory of non-meaningful material, and completion of sentences read to and/or by the examinee *(16, 2, 23)*.

Since the appearance of the Wechsler Intelligence Scale for Children in 1949, there have been at least a dozen studies which have attempted to analyze the performances of poor readers on this instrument. The results have not been identical, but there have been similarities which can be combined to make some useful generalizations.

Table 1 summarizes the results of the twelve studies examined by the author. In order to combine the results of these studies, a simple mathematical scheme was utilized. Each study was treated independently and numerical values were assigned as follows. On each subtest where retarded readers were found to achieve a significantly low score (—) a negative one was assigned; where they scored significantly high (+) a positive one was assigned; and where no difference was shown a zero was given.

TABLE 1: SUMMARY OF RESEARCH REPORTING WISC PATTERNS OF POOR READERS

SUBTESTS	Graham *(11)* 1952	Burks *(3)* 1955	Altus *(1)* 1956	Richardson *(21)* 1956	Spache *(25)* 1957	Hirst *(13)* 1960	Neville *(18)* 1961	Kallos *(14)* 1961	Dockrell *(7)* 1961	Paterra *(20)* 1963	McDonald *(17)* 1964	Robeck *(22)* 1964	TOTALS Minus	No Diff	Plus	Total
Information	—	—	—	—	X	X	—	—	—	X	—	—	9	3	0	— 9
Comprehension	+	+	X	X	X	X	X	X	X	+	+	+	0	7	5	+ 5
Arithmetic	—	—	—	—	—	—	—	—	—	—	—	—	12	0	0	—12
Similarities	+	X	X	X	X	X	X	X	X	+	X	+	0	9	3	+ 3
Vocabulary	—	X	X	—	X	X	X	X	X	—	X	+	3	8	1	— 2
Digit Span	—	X	X	X	X	—	—	X	X	X	—	—	5	7	0	— 5
Picture Completion	+	X	X	+	+	+	X	X	+	+	+	+	0	4	8	+ 8
Picture Arrangement	X	+	X	+	+	+	+	X	+	X	+	X	0	4	8	+ 8
Block Design	—	+	X	X	X	X	+	+	+	X	+	+	1	5	6	+ 5
Object Assembly	+	X	X	+	+	X	X	X	X	X	+	X	0	8	4	+ 4
Coding	—	—	—	—	—	—	X	—	—	X	—	—	10	2	0	—10
Mazes																

— Poor readers low
+ Poor readers high
X No difference
A blank indicates subtest not included in study.

With these procedures in mind, it appears that there is some agreement on the intellectual characteristics of poor readers. From Table 2, it can be seen clearly that poor readers tend to show relative strengths in some subtests and relative weaknesses in others, but that there is more agreement on the weaknesses than on the strengths. All twelve studies agree that poor readers score low in Arithmetic, ten showed them to be deficient in Coding, and nine found them low in Information. In contrast, eight studies concluded that poor readers scored high in Picture Completion and Picture Arrangement.

Table 2: Rank Order of WISC Subtests According to the Totals Column of Table I

	Total
Arithmetic	—12
Coding	—10
Information	— 9
Digit Span	— 5
Vocabulary	— 2
Similarities	+ 3
Object Assembly	+ 4
Comprehension	+ 5
Block Design	+ 5
Picture Completion	+ 8
Picture Arrangement	+ 8

Seven of the twelve studies compared verbal and performance IQ's and four found the performance IQ's of poor readers to be higher than their verbal IQ's. An additional study *(19)*, not included in Table 1, found that poor and average readers did not differ on their mean performance IQ's but that the average readers had a signficantly higher mean verbal IQ.

In one report *(18)*, the author utilized an earlier factor analytic study of the WISC in his findings *(6)*. Cohen found that the twelve WISC subtests represented four relatively independent factors. The factors were: Verbal Comprehension I—Information, Arithmetic, and Similarities; Verbal Comprehension II—Comprehension and Picture Completion; Perceptual Organization—Block Design and Assembly; and Freedom from Distractability—Digit Span and Arithmetic. The Coding subtest stood alone and was designated as a separate factor.

If the factor analytic results are applied to the findings of the various studies reported here, some interesting generalizations occur. Verbal Comprehension I contains two of the subtests, Arithmetic and Information, which were found to be among those in which retarded readers did poorest. In contrast, Verbal Comprehension II contains two subtests in which poor readers exhibit an average or above average performance — Comprehension and Picture Completion. The Freedom from Distractability factor contains two subtests in which poor readers tend to show deficits— Digit Span and Arithmetic. These two tasks appear related in that both require the subject to remember non-meaningful auditory stimuli. The third area in which poor readers exhibit difficulty is represented by the Coding subtest.

A recent study examined the performances of children with at least average intelligence but with severe reading disabilities on the ITPA and some additional measures thought to be important *(15)*. The results of this study indicated that poor readers exhibited deficits on two of the nine ITPA subtests and on all of the five additional measures. Specifically, the poor readers achieved low scores on the following tasks:

*a] Auditory-Vocal Automatic (verbal grammar test)
*b] Visual-Motor Sequential (visual sequential memory)
c] Visual Automatic (recognition of whole from parts)
d] Sound Blending (Monroe Diagnostic Reading Test)
e] Mazes (WISC)
f] Memory for Designs (Graham-Kendall)
g] Perceptual Speed (Primary Mental Abilities)

These results tend to support those reported earlier with the WISC in that they show that poor readers exhibit rather specific deficits. There are nine subtests in the ITPA and there were only two in which the poor readers gave a substandard performance. In fact, on the Visual Decoding subtest the poor readers achieved a high score, while on the other six their performance was average.

In reviewing the aforementioned findings, one finds that there is agreement on the intellectual characteristics of poor readers regardless of instruments used. These characteristics are summarized as follows:

a] They are weak in some, but not all, verbal skills. Some weaknesses are reflected in those tasks most closely related to school learning. (*e.g.*, Information, Stanford-Binet reading items.)
b] They show deficits in auditory and visual memory tasks when these tasks involve material which has

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*ITPA subtests.

no clearing meaning. (*e.g.*, memory for digits, visual motor sequential.)

c] They exhibit weaknesses in ability to organize separate auditory or visual stimuli into meaningful wholes. (*e.g.*, sound blending, visual automatic, mazes.)

d] They have a deficit in visual discrimination and association activities. (*e.g.*, coding, perceptual speed.)

It appears that on a logical basis, one might hypothesize that these intellectual deficits could be divided into two separate but not mutually exclusive categories—those resulting from a lack of reading achievement and those which probably predated the reading disability and, therefore, may be considered basic or causal in nature. Those grouped under the first category would be the tasks which directly reflect school learning, such as: the WISC subtests (Information and Arithmetic), the Stanford-Binet items which require the subject to read, and the ITPA subtests reflecting a deficit in grammatical usage. The deficit in language usage would probably be more of a causal factor when found in children from culturally disadvantaged areas. Those grouped under the second category would include auditory and visual memory, visual association and discrimination, and the organizing of visual and auditory stimuli into meaningful wholes. Related to this second category is an inference that these youngsters do not learn very well incidentally or deductively. At least the "causal-type" tasks have usually been learned by adequate readers with a minimum of specific training and often in a seemingly deductive manner. On the other hand, the poor reader, even when he has experienced a preschool environment which is not basically different from that of the good reader, does not function adequately in these areas.

Treatment Approaches

It is the author's purpose to relate training approaches to the deficits which are exhibited by poor readers. The purpose of the suggested classification system was to direct attention to those deficits which appear to have more promise in selecting those types of tasks which have most value in a "remedial" or "preventive" type program. Those tasks which fall in the direct school learning category would, in this author's opinion, not be appropriate in the early stages of a remedial program except in the case of language usage development for the culturally different. Rather, at this stage, the program should stress activities based on improving skills in those tasks which reflect deficits predating the reading disability; namely, auditory memory, visual memory-association, organizing parts into wholes, and deductive learning.

These might be categorized as those which require automatic responses rather than those requiring more thoughtful responses. This reasoning would give support to recent articles by Bryant (*4*, *5*) suggesting learning principles which should be applied to programs for dyslexic children.

The above deficits would suggest that remedial or preventative programs should be concerned with presenting reading material in ways which strengthen these basic areas rather than assuming the child has adequate ability in them. This approach should make a difference in the way the teacher perceives his task. The goal is, of course, to improve the child's reading skills, but the findings presented here suggest that the intermediate goals of improving abilities in the basic areas which support the acquisition of adequate reading skills is also extremely important. This is not to imply that this author would see these as two separate steps, but it does point out the importance of approaching the reading task in a way which does not assume that the poor reader functions adequately in these basic skills. It is, of course, understood that all poor readers do not show deficits in all of the above areas. However, treatment programs would do well to do the following.

a] Structure the task to be learned carefully. Analyze the task to be learned and present it in structured, carefully planned steps.

b] Utilize a multi-sensory approach by presenting materials to non-deficit areas first. If we think of the three sense modalities, it would seem appropriate to present material initially through the auditory and kinesthetic channels if a child is weak in the visual association-memory area.

c) Plan carefully for the attainment and retention of automatic responses. There is some evidence to suggest that overlearning is of crucial importance to poor readers.

It appears that many of the well known remedial teaching techniques, such as those presented by Gillingham *(10)*, Fernald *(8)*, and Kirk-Hegge *(12)*, meet many of the above qualifications. However, it is often necessary to make some adaptions for individual children. In addition, materials of more recent vintage such as those conceived by Frostig *(9)* and Smith *(24)* offer promise by including training in basic areas of deficit.

In summary, it seems that poor readers exhibit weaknesses in specific areas. Therefore, it is suggested that treatment programs be selected in terms of their provision for the strengthening of these basic weaknesses. Further research is needed in order to assist the teacher in analyzing specific weaknesses of the individual and selecting specific approaches and materials to remediate them.

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10. Clinical Evaluation to Determine the Needs of Children

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CLINICAL EVALUATION is concerned with locating the specific reading needs of the child. It is more specifically aimed at pinpointing areas of weaknesses and strengths within the reader and with the determination of appropriate corrective measures to be used. During the evaluation the level of the reading handicap is determined. If the child is not reading up to his potential level, the clinic personnel will attempt to locate the limiting factors and ascertain the degree to which these are contributing to the handicap. During the diagnosis they will be concerned not only with the causal factors but also with the negative aspects that have resulted from the reading difficulty.

The entire diagnosis will be concerned with finding results that will contribute pertinent information to be used in suggesting effective corrective work for the child. The recommendations that are developed from the diagnosis should give specific directions for corrective work, including alternate possibilities.

Clinical work is justified to the degree that it contributes to effective remedial instruction and improved classroom teaching.

Reading Ability

In determining the specific needs of the child, it is essential that a valid detailed evaluation be made of his reading ability. To obtain more complete information a battery of instruments, both standard and informal, should be used. Each type will have advantages and each will furnish information that the other cannot as easily provide.

A standardized reading test can be administered to help evaluate major areas of difficulty. In general, these tests give a reading level in vocabulary, comprehension, speed of comprehension, and a total reading grade. This type of test will tend to overgrade the child who is handicapped in reading at least one year, indicating that his score should be lowered for a more accurate estimate of reading ability.

A standardized diagnostic test based on indicated individual needs can be administered to aid in pinpointing specific difficulties. Tests such as the Bond-Clymer-Hoyt Silent Reading Diagnostic Tests, the Spache Diagnostic Reading Scales, or the Durrell Analysis of Reading Difficulty will meet these needs. Depending on the age of the child, the child's needs, and the time available, the complete test may be administered or only parts of the test that meet certain needs may be used.

Frequently, there is a need for using standardized oral reading tests such as the Gray Oral Reading Test or the Gilmore Oral Reading Test. Two of the three diagnostic tests noted in the preceding paragraph evaluate oral reading; however, these two are more comprehensive.

Informal methods give very valuable information concerning the reading needs of children. The informal reading inventory is one of the most frequently used methods for evaluating the reading level of children. Selections for the inventory are taken from graded materials; generally these are taken from a series of basal readers. The child is required to do both silent and oral reading. Following the silent reading an evaluation of the various comprehension skills is made to determine the highest level at which there is adequate understanding. The oral reading situation provides an opportunity to determine some of the word recognition difficulties, to observe faulty reading habits, and to look for indications of tension.

Nonsense words are frequently used as an aid to determine skills needed in word discrimination. This approach will aid in pinpointing specific instructional needs: specfic initial consonants, blends, the phonic principles, or a total program. The use of nonsense words is based on the premise that if actual words are used it is impossible to determine whether the child has the word in his sight vocabulary or if he has skills needed to unlock the word.

There are advantages to having the various tests administered by several clinicians. There can be differences in rapport with children that might result in bias. Some clinicians are more skilled in observation than others. Throughout the complete clinical diagnosis, the skilled clinician is constantly observing the child. While much of this observation may appear to be casual it results in specific information to aid in understanding the child and in making appropriate recommendations for corrective work.

The instructional level is determined by the results obtained from the standardized and informal techniques and by a concensus of the clinicians who have been involved in the diagnosis. Recommendations for instruction in word recognition, comprehension, and any other specific skills are determined in the same manner.

Capacity

To determine the needs of the child it is obvious that his achievement should be related to capacity. His capacity is evaluated by using an individual intelligence test, the Revised Stanford-Binet Scale, or the Wechsler Intelligence Scale for Children being used most frequently with normal children. An initial concern would be the size of discrepancy found between his ability level and his present achievement. The achievement level should at least approach his capacity level if he has had the opportunity to learn and has been in school for three or more years. Evaluation should be concerned with areas that indicate either strengths or weaknesses. For example, comparative low scores on verbal tasks could point up a child's specific needs.

Continuous observation of the child during the diagnosis can furnish additional information concerning capacity. This information should be taken into consideration during the evaluation. Recommendations should be made in light of the results of capacity measures.

Background Information

Information concerning the background of the child, including both home and school records, can furnish valuable information. Much of this material is obtained by having the home and the school complete selected forms. Additional material will result from interviews with one or both parents and from interviews with school personnel having contact with, or information concerning, the child. The subjective nature of this information does not make it valueless, but simply requires the clinicians to consider this fact in evaluation.

The school should furnish information concerning the date and age of entrance, including nursery school and kindergarten experiences, and a record of advancement through school. Included should be retentions, and any reasons for them; different schools attended; special abilities and handicaps. A complete record of grades, absences for each year, and reading materials used with the child would be helpful. Complete results from all standardized tests administered should be listed as well as reports from previous referrals or special help.

The school form should indicate the level of instruction, the materials being used for instruction, and specify methods being used. The clinic needs to be aware of special methods that could possibly handicap the child as well as areas that have been neglected in classroom teaching.

Opportunity should always be provided for teachers and administrators to comment concerning the child.

The form completed by parents should contain general information concerning family background, marital status, and siblings. As much information as possible concerning the developmental record of the child should be furnished and the source of this information indicated.

A record of the child's illnesses should be obtained with comments concerning any aspect that appeared to be more severe than normal. There could be concern for sustained high fever, severe injuries especially to the head, abnormal birth, and long absences from school.

The parental information should be supplemented with the parent interview. During this interview the skilled clinicians should obtain not only specific information but also impressions of the interrelationships of the family. An interview with the child extends and substantiates the above data.

Physical Factors

The clinic should use screening tests to evaluate visual and auditory efficiency. If practical, the child failing either of these tests should be re-checked by the clinic later the same day or the following day. If the child fails the visual test the second time, he should be referred to a visual specialist by his parents. The hard of hearing child should be referred to a hearing clinic.

The Snellen Chart is still used all too frequently for visual screening. Although its limitations have been noted for years, it is often the only measure used by many schools. Some of the tests that are considered more efficient are: The Keystone Visual Survey Telebinocular, The Ortho-Rater, The Eames Eye Test, and The Massachusetts Vision Test. An informal survey on vision can provide additional information. It can aid in locating children who have adequate visual capacity but whose eyes tire or become easily irritated.

The clinicians should note any tendency for speech difficulties on the part of the child. All children with speech problems should be referred to a speech clinic or speech therapist, depending on the school organization.

Although the parent forms have spaces for reporting physical deficiencies or illness, these might not be reported or the parent might not be aware of the difficulty. Glandular disturbances, poor general health, or any of a number of physical handicaps could contribute to the reading problem. In cases where it is indicated that physical factors might be involved, it should be recommended that the child have a complete physical examination. In this type of referral, it is well to ask the parents to have the doctor send a report to the clinic.

Emotional Factors

Many children with reading problems also have emotional problems. During the interview, the clinician may obtain indications of emotional tension. Observation throughout the diagnosis frequently gives additional information concerning pressure. From the parent interview there may be indications of pressure or emotional problems.

The present "personality" type tests are of limited value. The child may "fake" these tests to please the clinician or to direct the results in the direction he thinks is most desirable. If there are suspected emotional factors, the child should be scheduled for evaluation by a psychologist.

Pressure from the home, the school, or the peer group will frequently be a factor. The school practice of teaching the child several levels above where he can succeed will contribute to emotional problems. Unreasonable assignments requiring several hours of homework not only intensify the problem but create a dislike for reading.

Other Areas

Arithmetic is evaluated to determine how the child functions in an area requiring a minimum amount of reading. This comparison is especially true when his success in only the fundamentals is evaluated. Spelling and work-study tests indicate success and or needs in related areas. Listening tests can furnish other valuable information. The results gained from such tests are sometimes considered an indication of possible reading capacity.

Facilities for evaluating, or referral agencies, are necessary in work with children with suspected neurological limitations.

The clinic, ideally, would be able to refer the child to different agencies and to obtain from them information relative to the problem.

Types of specialists and agencies that are needed in this cooperative enterprise are Speech and Hearing Clinics, Psychological Clinics (if reading is not a part of a Psychological Clinic), visual specialists, Family Relations Agencies, Child Welfare agencies, psychiatrist, medical clinics, and probably others for special cases.

The cooperation of all the agencies needed, the pooling of information and knowledge, and the joint cooperation in correction would probably create a higher degree of success and give greater amounts of pertinent information. However, most clinics will of necessity be limited to having the services of only one or two of these agencies.

Summary

A reading clinic attempts to gather as much pertinent information concerning the child as is feasible. This information is supplemented by evaluating the reading skills and related areas that contribute to successful reading experience. The clinic's aim is to gather as much valid material as possible that contributes to the understanding of the child and his problem. Ideally, only material that will contribute to this understanding is gathered.

This information is then used for recommendations to aid in understanding the child and his difficulty and to give directions for corrective work.

11. Three Diagnostic Reading Tests: Some Comparisons

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EACH YEAR thousands of individual appraisals of reading ability are conducted by classroom teachers, reading consultants and clinical workers in their various settings. In the search for the best possible estimates of the specific reading strengths and weaknesses of pupils, most diagnosticians — whatever their professional labels — assemble information from a variety of evaluative devices. One of the more widely used appraisal devices is the individually administered commercial reading diagnosis test.

The publishers of the several commercial tests for reading diagnosis do not publicize their sales totals, but anyone familiar with the extensive use of these tests by reading clinicians and remedial teachers is forced to the conclusion that the sales run to quite a few thousands each year. However, in spite of the wide use of such tests as the *Durrell Analysis of Reading Ability (2)*, the *Gates-McKillop Reading Diagnostic Tests* (3), and the (Spache) *Diagnostic Reading Scale* (5), the professional literature includes no evaluation of the tests of reading diagnosis, except for the brief summaries in Buros' *Mental Measurements Yearbook (1)*.

The lack of any reported research on the measurement properties of the popular commercial reading diagnosis tests would be a sufficient reason for a comparative exploration of the Durrell, Gates-McKillop, and Spache tests. Nevertheless, the motivation for the comparison study reported herein came mainly from types of observations made by the authors *(1)*. There is an apparent tendency for many teachers—and even moderately sophisticated clinicians—to place considerable trust in the subscores derived from the individual diagnostic tests they utilize, especially in the typical situation in which only one commercial reading diagnosis test is employed *(2)*. Certain scaling discrepancies seem to exist between the three tests and even within two of the tests or their subtests; that is, certain parallel, similarly-labeled subtests in the Durrell, Gates-McKillop, and Spache tests appear to yield grade level scores which are consistently high in the case of one test and consistently low for another, and even within a given subtest, some items are evidently operationally much more difficult than others which are purported to be of equal difficulty.

As a first step in checking some of the suspicions concerning between-test and within-test discrepancies, the authors planned a comparison of the scores earned by a sample of children to whom all three tests were administered. Following a pilot study, a random sample of 101 third grade pupils was selected from the total third grade population of 340 in the public schools of Clarence, New York, a suburb of Buffalo. While the total testing program occurred over a span of several weeks, for any given pupil or groups of pupils the Durrell, Gates-McKillop, and Spache diagnostic tests and the reading comprehension subtest of the *Iowa Basic Skills Tests (4)* were administered in a period of less than two weeks. The pattern of test administrations was counterbalanced to minimize any effects due to order of presentation. The reading subtest of the *Iowa Basic Skills Tests* was used as an "anchor" test because it is thoroughly respected for its statistical, theoretical and practical excellence.

As would be expected, even by a person unfamiliar with the three diagnostic reading tests, some of the subtests in each are not sufficiently similar to subtests in the other two to provide bases for comparison. Fortunately, however, all three diagnostic booklets contain measures of two elements of reading performance which diagnosticians consider important: oral reading and word analysis. For each of these two elements a Spearman rank order correlation coefficient was calculated for each possible pairing of the three tests. The highly statistically significant results were as follows:

	Oral Reading	*Word Analysis*
Durrell-Gates	.91	.96
Durrell-Spache	.92	.93
Gates-Spache	.90	.92

The magnitudes of these several Spearman *rho* coefficients are beyond the expectations of most reading diagnosticians, especially since the samples of responses are not very lengthy. In any case, the correlations are so high that it is necessary to conclude that the three subtests labeled "oral reading" are measuring the same function or skill, whatever it is. Obviously, a similar statement can be made concerning the three tests of word analysis. While these high correlations are gratifying to users of the Durrell, Gates-McKillop, and Spache tests, the related question which, in part, provoked the comparisons was: does any of the three tests yield consistently higher or lower grade level scores than the other two? Since results of an individual diagnostic reading test are often the most trusted factors in the determination of instructional levels for specific pupils, it is immediately apparent that users of the test would be interested in a tendency for any of the three tests—or some of its subtests—to yield scores that are high or low compared to the other two tests.

In order to identify significant differences between the grade-equivalent scores derived from each pair of subtests of oral reading, the t-test for the difference between correlated means was selected as an appropriate statistical test. The several calculations based on this variation of the t-test revealed that pupils in the sample earned higher grade level scores in oral reading on the Spache test than on either the Gates or Durrell, and that the Gates scores were consistently higher than the Durrell grade level values; all three of these differences were significant at the one percent level. Since scores from the reading comprehension subtest of the *Iowa Basic Skills Tests* were available as independent criterion scores, these values were paired with each set of oral reading scores from the Durrell, Gates-McKillop, and Spache instruments, and another series of the t-test for differences between correlated means was calculated. The Durrell grade level scores were significantly lower than the Iowa scores; the Spache oral reading scores were higher than the Iowa values, and the Gates-McKillop scores did not differ from those yielded by the Iowa subtest.

Another set of six t-tests was calculated to determine the extent of diversity between each pairing among the word analysis subtests of the three diagnostic tests and between each of the three and the Iowa subtest. Again, the grade level scores from the Spache were signficantly higher than those from either of the other tests, but in this case, the Gates-McKillop scores were lower than those gleaned from the Durrell by a significant amount. When these three sets of grade level scores were compared, one set at a time, with the scores from the Iowa subtest, the scores from the Gates-McKillop again were not significantly different from the Iowa results, but the Durrell and Spache values were significantly higher than the Iowa grade levels.

The Spache diagnostic test does not

include a flashed (speeded) test of word recognition, but such a subtest is incorporated into the Durrell and the Gates-McKillop; therefore, the latter two were compared in this aspect of diagnosis; each was also compared with the Iowa subtest. The grade level scores from the Durrell flashed word recognition test were significantly higher than those from the similar Gates subtest. The Durrell values were also significantly higher than the scores on the Iowa, but there was no significant difference between the grade level scores from the Gates-McKillop flashed word test and the Iowa subtest in reading comprehension.

The investigators had for a number of years suspected that certain of the Durrell subtests contained items that were not properly scaled in terms of difficulty, and in recent years a similar doubt had arisen in regard to the readability of some of the text samples in the Spache diagnostic test. The *Durrell Analysis* includes a subtest of listening comprehension which requires the pupil to answer a series of more questions after each of several graded paragraphs which are presented to him by the oral reading of the examiner. The child's listening comprehension level is defined as the highest level at which he misses no more than one of the questions. In theory, this is a very useful test, since it provides the diagnostician with an indication of the examinee's comprehension ability independent of his skill in reading. However, in practice the listening test has not worked out, because the graded paragraphs did not seem to be in proper order. Performances of the 101 pupils in the Clarence third grade sample indicate that apprehension concerning the relative difficulties of the listening comprehension items is justified. Ninety-nine percent of the pupils passed the third grade paragraph test; only 10 percent passed the fourth grade item-paragraph, but 32 percent passed the fifth grade exercise.

The *Diagnostic Reading Scales* are also encumbered with some procedural difficulties which limit the usefulness of some of the subtests. The graded reading passages of the Spache test booklet are used first to establish an "instructional" level as the examinee reads orally and is evaluated by the examiner. The examiner's manual recommends that after the pupil has progressed to his functional limit in this fashion, and the instructional level has been determined, the test administrator should proceed to establish the "independent" reading level as the child reads silently. "Have (the examinee) begin reading *silently* at the level just above his obtained Instructional Level," is the specific direction found in the manual (page 29). However, with more than a few pupils the recommended procedure was not practicable, because these examinees were not able to read silently at a level "just above" the instructional level they had established. It is immediately apparent that the procedure recommended in the manual will not function with any child whose silent reading level is appreciably lower than his oral (instructional) reading level. Specifically, it was not possible to determine silent (independent) reading scores for 47 percent of the pupils in the third grade sample. (It should be noted that the Spache definitions of "independent" and "instructional" reading levels are quite different from the usual meanings of those terms.)

The Spache diagnostic instrument is arranged to yield a "potenial" reading level in addition to the independent and instructional levels. Here again, the administration of the diagnosis is complicated by the directive to "have the child listen while you read, beginning with a selection just above his Independent Level. After reading each selection, ask the comprehension questions and record the pupil's percent of comprehension." "The percent of comprehension at the Potential Level should be 60 or more for adequate understanding" (manual, page 30). Fifty percent of the pupils in the third grade sample were unable to achieve 60 percent comprehension on the potential (listening) test selection, when that selection was chosen in the prescribed manner. (In those instances in which it was impossible to derive an independent level, the potential or listening level was based on the selection "just above" the instructional level.)

Perhaps some of the administrative

difficulties in the Spache test are related to the operationally unequal readabilities within sets of paragraphs which are purported to be of equal reading difficulty. Paragraphs 3A and 3B in the sequence of graduated passages are supposed to be of equal difficulty; they are accorded a grade level of 3.3 or low third in the manual. Yet, of the 23 pupils who responded to paragraphs 3A and 3B, all 23 were successful on the first, but only one was successful on 3B. At a higher level of reading difficulty 16 pupils responded to paragraphs 8A and 8B; 14 succeeded on 8A and none succeeded on 8B, although 8A and 8B are both accorded a grade level of 8.5 in the examiner's manual. As most diagnosticians would guess (on the basis of the frequencies reported above), some of these inequalities are statistically significant.

Conclusions

From the standpoint of the diagnostician the following conclusions would seem appropriate if the observations made during this study can be generalized to the population of pupils examined by the Durrell, Gates-McKillop, and Spache individual reading tests.

1) The oral reading subtest of any one of the three tests—Durrell, Gates-McKillop, or Spache—is a reliable indicator of the rank order of general reading ability of the pupils in a group. This conclusion is based on the significant correlations with the reading subtest of the *Iowa Basic Skills Tests* (.86, .83 and .82, respectively) and the extremely high correlations between each pair among the three oral reading subtests. These latter correlations constitute a sort of homemade reliability index, since the three oral reading tests are so much alike that they could almost be considered equivalent forms of a single test type.

2) The word recognition-analysis subtest of any one of the three tests is also a reliable indicator of the rank order of general reading ability of pupils in a group, and for the same reasons as in observation 1.

3) The oral reading subscores derived from the Durrell test are, on the average, about half a grade level lower than the corresponding scores derived from the Spache test and about one-third of a grade level lower than the parallel scores from the Gates-McKillop.

4) The word recognition-analysis (non-flashed) scores yielded by the Spache test are, on the average, about four-fifths of a grade higher than the corresponding scores from the parallel Gates-McKillop subtest, and about half a grade higher than the corresponding value from the Durrell. Obviously, the Durrell grade level scores on word recognition-analysis would thus average three-tenths of a grade higher than the Gates-McKillop values.

5) Grade level scores yielded by the Gates-McKillop subtests of oral reading and word recognition are not significantly different, on the average, from the grade level scores on the reading comprehension subtest in the *Iowa Basic Skills Tests*.

6) The items in the listening comprehension subtest of the Durrell are not arranged in progressive order of difficulty. Thus, the grade levels determined on the basis of this subtest are of doubtful validity. Probably examiners should use the Durrell listening subtest only as a very informal measure.

7) The Spache test includes certain pairs of reading passages which are supposed to be of equal difficulty (within the pair), but which are of markedly different within-pair difficulties. These unequal item difficulties have deleterious effects on the administration of the oral and silent reading subtests.

8) The procedures prescribed for determination of silent (independent) and potential (listening) reading levels on the Spache test renders the calculation of these two values impossible for some examinees.

Although the scrutiny of the three major commercial reading diagnostic tests has revealed certain limitations, especially in the Durrell and Spache instruments, the diagnostician or clinical worker should not lose sight of the fact that these tests were not constructed to meet typical measurement objectives, but were, according to the Durrell manual, "designed primarily for observing faulty habits and weaknesses in reading which are pertinent to planning a remedial program." These tests, in other words, are language arts obstacle courses, and the diagnostician must bring enough sophistication to the test sessions to evaluate pupils' reading abilities and weaknesses as they succeed or fail on the various obstacles. Since the examiner becomes a vital part of the diagnostic process, the individual reading diagnosis test need not be as precise an instrument as would be required for group testing by a teacher who is not a reading specialist. Thus, certain departures from good measurement practice can be tolerated in these individually administered diagnostic instruments. Nevertheless, the Durrell and Spache tests contain irregularities which should be eliminated in the interest of better diagnosis.

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12. Procedures for Evaluating a Reading Clinic Program

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BEFORE IT IS possible to discuss in detail procedures for evaluating a reading clinic program, it is important that an understanding of the aims, scope, and special design of the particular clinic be spelled out. Where the authority lies, of course, also determines what kind of evaluation will be possible. A college or university clinic may have less opportunity to set up a comprehensive program of evaluation of the services it provides to school children than would a clinic which is part of a public school system and can obtain the approval of the superintendent of schools for the procedures used. On the other hand, a university-sponsored clinic may benefit from the careful design of research planning by highly trained personnel.

To begin with, let us assume that the reading clinics with which we are concerned provide service to a population of school children within clearly delimited geographic areas. The administrator of such a school district will undoubtedly expect to receive at the close of the school term (or at other specially requested periods) a report from the director of a reading clinic in general child-accounting terms. For example, the total number of children given service will be reported; and perhaps this figure will be set against the number of children referred for service, and the number discharged, with reasons given. Some administrators will want to evaluate how the various schools are taking advantage of such a special service and may want the above data broken down by schools. Usually the overall administrator under whom the reading clinic is organized will want to have a copy of a complete report of the sort which could be patterned on the plans suggested here.

Initial Stages in Evaluation—The Diagnosis

If the reading clinic has specially qualified teachers of reading and also clinical personnel able to give diagnostic and treatment services, then the usual procedure calls for a careful reading diagnosis by the reading teacher plus a casework evaluation by a social worker and individual examination by a psychologist. On the basis of the findings of these three workers, enough data can usually be assembled to provide a tentative diagnosis of the problem and plan for treatment. The child will have had several reading tests to measure his reading achievement and to analyze special difficulties in reading such as are revealed by various oral tests of phonetic skills. Objective scores obtained on reading tests will have been recorded in terms of age or grade scores, percentile points, etc., which will serve as a basis for measuring later improvement. The reading teacher will also have learned from the regular school staff what behavior and/or personality problems the child manifests so that these reports, together with her own first observations of behavior, may be entered in the anecdotal record and later used as a basis for evaluation of changes in behavior.

Depending on the extent to which the parents are concerned with the child's difficulty and can contribute their own observations and expression of attitudes, the parent-child relationships will be clarified by the clinicians and can be assessed for their bearing upon the child's learning and behavior difficulties. In some cases a very full study, perhaps including a careful medical history and present examination by pediatrician, neurologist, eye or ear specialist, as well as a psychiatrist, may be in order. Special cases may include those which need individual medical attention, correction of sensory defects, or assistance with a related problem such as a speech defect. Notation concerning all of these conditions must be entered in the case records so that their handling may not be overlooked nor their later evaluation omitted in regard to the response to such treatment.

Another more informal method which includes evaluation in a consultation procedure is followed in the New York City clinics. On the one specified day of the week when reading teachers are scheduled to come to the school in which the clinic center of a district is housed, conferences are scheduled by the coordinator of the clinic. During these conferences the reading teachers meet with the clinic staff (psychologist and social worker, with the psychiatrist joining also in special cases) to have case conferences on individual children.

These may be "intake" conferences, at which the purpose is to share information and interpretation made from the initial studies before the children are accepted into the program. Plans as to the type of handling the child seems to need are agreed upon by the staff members and are recorded in a special report, copies of which are placed in both the reading teacher's anecdotal record and in the confidential case record maintained by clinicians. Later conferences on these cases are usually held at the request of the reading teacher, especially if the child does not respond as had been anticipated to the reading instruction.

Other types of conferences are also helpful—for example, at the request and with the participation of a child's class teacher or other school personnel. All of these group processes, which almost certainly lead to closer cooperation of the various people concerned with an individual child, involve evaluation directly or indirectly.

Interim or Year-End Evaluation—The Testing Program

To return to the more general evaluation of the reading progress made by children attending a clinic, it is desirable to have a regular program for retesting the children with alternate, equivalent forms of the same reading tests or with succeeding tests included in the same series previously given. Hopefully, scores on such tests are graded on the same scale or by age or grade standards which have known and equivalent units. In our New York reading clinics we have used both the N. Y. Tests of Growth in Reading, devised by our N.Y. Board of Education's Bureau of Educational Research, and also other commercially available tests of reading such as the Metropolitan Reading Tests and the various tests devised by Arthur Gates and published by the Bureau of Publications of Columbia University.

The obvious way to evaluate the reading achievement of a child or a group of children is to compare the scores obtained on reading tests at the close of a school term, or after a certain significant length of time during which clinical help was given, with the scores obtained at the beginning of such a period of clinical instruction and guidance. Reading gains are obtained by simple subtraction of the original from the subsequent or terminal grade scores. As an example, the May 1965 results for the New York City reading clinic for 1,350 children measured by the N. Y. Tests of Growth in Reading showed a median reading gain of 1.3 grade scores, whereas median length of service was 1.0 years.

Year-End Evaluation—The Ratio of Learning Prior to and After Admission to the Clinic

In order to evaluate these findings in somewhat greater detail, a plan was devised whereby the average reading growth per month of schooling was determined for each child, first, prior to admission to the reading clinic and, later, whenever a testing program was desired. The first step is to compare for each child the reading grade score with the "grade equivalent" of the child. If the child has been held back once or more than once, the time for such repetitions of grades should be added to his "grade equivalent" to determine the expected achievement. Thus, if a child is in the third month of grade three, which he is repeating at the time, his expected reading achievement in grade score should be grade 4.3 (3.3 + 1.0). If his obtained reading grade score is 2.8 (the equivalent of eight months through grade 2), it is the latter scores which are to be compared. For example, when the child actually achieves 2.8 he has theoretically learned 1.8 years in reading (2.8 — 1.0)* whereas he should have acquired 3.3 grades in the course of his 4.3 years of instruction (4.3 — 1.0). The ratio between 1.8 and 3.3, or .55, represents the average reading growth per month of instruction which has occurred prior to reading clinic assistance to this child.

Similarly, such ratios may be obtained for all the children in the clinic's caseloads; and these percentages will roughly represent their learning efficiency at the time of acceptance into the clinics. At the time an evaluation is made, each child's total reading test score may be converted to a grade score. If the efficiency with which he has responded to the reading program is to be compared with his original ratio, the difference between the two scores must be divided by the months of reading-clinic attendance. For example, if the child who began with a reading grade score of 2.8 reached a grade score of 4.5 after 1.4 years of instruction, his average ratio of growth during the period of clinic attendance is obtained by dividing the gain (4.5 — 2.8) or 1.7 years or 17 months by 14 to obtain 121% or an average of 1.21 months of grade score per month of instruction. This figure represents a considerable gain over the .55 months—a gain which was characteristic of the child on admission to the clinic service. If such figures are available for all the children, they may be dealt with by various statistical procedures to show the changes in learning efficiency. The data may be totaled and/or separated into subgroups by grade groups, by teaching caseloads, or by groups provided with varying lengths of service; and the scores distributed so that central tendencies can be ascertained. For example, in one of our reading clinics, the statistics for the 1964-65 school year showed at the close of the school term an average reading growth per month of 120 percent. The same children, upon entering our clinic program had had an average reading growth of only 43 percent per month. These are easily understood, meaningful figures which can be given to school personnel and even to the public in general, who may want to know if a clinic program actually results in children's improved learning.

Year-End Evaluation—A Comparison of "Reading Accuracy Ratings"

Another way of evaluating the reading growth of children after a period of special instruction is to note the reduction in errors made on silent reading tests. The N. Y. Tests of Growth in Reading provide "reading accuracy ratings" which are based on the number of correct items divided by the number of attempted items. Initial versus final reading results may be evaluated by comparing these "accuracy ratings" in terms of the percentages obtained at each level. Thus in our New York City reading clinics, for a total of 1206 children* given service during the school year 1964-65, seventy percent obtained "medium" or higher accuracy ratings, whereas of these same children, on admission to the clinic program, only 26 percent had reached "medium" or higher accuracy. (The test norms for the standardization population were 60 percent with medium or better than medium accuracy.

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*Standardized Tests of Achievement in Reading usually begin with 1.0.

*Excluded from the grand total of the official caseload were 144 pupils whose achievement was not high enough on admission to the clinics for them to be tested with the reading tests which provide accuracy ratings. Many were non-readers.

Year-End Evaluation—The Principal, The Class Teacher

Regarding the guidance aspects of the program, evaluation will depend on the nature of the work carried out and its apparent outcomes. The opinions of the referring schools may be solicited by letter to the principal with answers to questions, such as: To what extent has there been evidence of improvement of the children? Do the class teachers express evidence of having received help through consultations with the clinic staff or through demonstration lessons by the reading specialist? Have they observed changes in the behavior of the children concerned? etc. It is well to also allow for negative criticism by asking directly if there are suggestions for improvement of the service.

It is important to have the opinion of the class teacher regarding the child's personal-social adjustment both prior to and following attendance in the reading clinic. The form shown here may be used either for a written communication or as a basis for consulting a class teacher:

> Has there been evidence of positive change in the child's attitude toward reading and other school subjects?
>
> Has there been growth in the child's relationships with his classmates? Is he better integrated with the group? Is the group accepting him?
>
> Is the child showing evidence of increased participation in the classroom activities?
>
> What problems does he present?

Year-End Evaluation—The Parent

The parents may also provide data for evaluation. The social workers or other clinicians dealing with the parents, individually or in groups, may ask them to estimate the progress made by their children, to give criticism of the service they have received. (Do they want to continue with treatment? Does the child show any increase in self-confidence, in wishing to go to school? Does he seem happier at home? Does he show increased ability to get along with siblings, playmates?) While answers to these questions may be influenced somewhat by a parent's wishes, the general tenor of a parent's evaluation is likely to be fairly dependable, especially if his comments are compared with his report about his child's problems at the time of the intake interview.

Year-End Evaluation—The Pupil

The children themselves may also be asked to evaluate their own reading progress; and, if this is done by checking written answers to questions phrased and read to them by their reading teachers, the replies may be evaluated by teachers other than their own in order that they may be interpreted as objectively as possible. (See form below.)

CHILD'S ESTIMATE OF HIS PROGRESS IN READING

Directions: Pupil is to check any statement which he considers to be true of him.

I think that during the present school year

______ I have learned more about reading than in any previous school year.

______ I have gained as much in reading power as I did last year.

______ I have enjoyed reading more than ever before.

______ I still have trouble with new words.

______ My school marks are not as high as they used to be.

______ My marks have improved

  ______ a good deal

  ______ somewhat

______ I want to continue in the reading program.

Signed ______________________
(Pupil)

Grade ______________

Reading Teacher's Evaluation: Taking the above into account, the class teacher's report, and also the test results, check one of the following as representative of this child:—

________ No improvement
________ Fair improvement
________ Very good progress
________ Excellent progress

Signed ____________________
(Reading Teacher)

Checked by ____________________

This report has been patterned on the procedures and the resulting experience of Special Reading Services in the City of New York. Other clinics which may have more uniform patterns of instructional or other procedures will accordingly vary their evaluative procedures. Also, as research advances our knowledge as to the most effective methodology, it is expected that evaluation procedures will be guided by relevant research findings.

COSPONSORED MEETINGS

NATIONAL READING CONFERENCE

The Materials Explosion

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During the period from January 1962 until May 1966, I had the privilege of functioning as book review editor for *The Reading Teacher*. I speak of this opportunity as a privilege with perhaps some reservations. As you will readily see, there were times during this period when the experience became a frustration rather than a joy. However, the opportunity to review most of the new materials in the field of reading and related disciplines forms the basis of my remarks.

During this 53 month period as book review editor I reviewed 252 different items. If you are quick at mathematics, you will recognize that this represents about five new books or other materials per month. And even this volume was not sufficient to completely cover all materials being published. Fortunately I kept a detailed record of every item during this period and I will attempt to convey to you some concept of the explosive development of reading materials by reviewing these.

Of the entire group, the largest single type of publication is that composed of textbooks, bulletins, and collective readings, all of which deal with methods of teaching reading. There were 66 such textbooks or bulletins issued during the four year period. This does not include some 12 additional books or bulletins on the organization and curriculum, six books on diagnostic and remedial reading, and three on testing and evaluation. In addition there were 15 reports of reading conferences, 18 research studies or summaries, and 14 books or bulletins dealing solely with the topic of materials in the field of reading. Three other books dealt with historical aspects of American reading instruction; six were addressed to parents in order to speed up their tutoring of their children or to interpret the reading program to them, and there was one professional dictionary published during this period.

In addition to all these, there were 15 books emanating from other disciplines which presumably bore upon reading instruction. These include seven books on linguistics and reading, six on the implications of psychiatry and neurology for reading instruction, and one each from the field of optometry dealing with the vision of children and the field of educational psychology dealing with the learning process in reading instructions. To sum up this one major category of publications, there were 159 textbooks or bulletins or an average of three per month during this period. If I felt frustrated in trying to assemble brief reviews of these, you can imagine how much more frustrating this flow of materials must be to the average teacher who sincerely tries to maintain professional knowledge.

The second major category in this explosion of reading materials is that of instructional materials. During the four year period there were 93 books, workbooks, or series of books published that I was able to reveiw. Sixteen of these were for elementary pupils, 11 for secondary, and 17 intended for college and adult use. Six new workbooks or series of workbooks were issued in the area of phonics and work analysis, a similar number in vocabulary and spelling, and again as many in study skills. Five new series of programed materials appeared during this period, at least three new children's dictionaries, and four book kits or book collections. To add to this mass of materials, there were also some 15 devices or games and four sets of adapted or simplified reading materials. In looking over this variegated collection, one is tempted to say that no matter what you are now using in reading instruction, there is a new publication paralleling your materials which probably claims to do the job better than what you are now using.

Those of you who read these reviews may have noticed from time to time that the tone was not always laudatory. In fact, some of the outraged authors whose materials I reviewed were certain that the tone was derogatory or even defamatory. Perhaps these protests were appropriate, but somehow I don't feel that I owe these authors an apology. When a book review editor has to read through an average of about three new books or bulletins on methods of reading instruction, each of which claims to be perhaps the last word on proper methodology, you may be able to forgive him for his cynicism.

Let me share with you some of the gems of knowledge I have gained from this reading experience. Do you know that there are any of six or eight new phonetic alphabets which should be substituted for our current alphabet? Do you realize that if we did make any one of these six substitutions we would solve all reading problems and that the need for corrective and remedial instruction would disappear? Are you aware that retraining children in the creeping and crawling activities of infancy would automatically result in spontaneous elimination of all language and reading difficulties? Have you heard that the repeated playing of records reproducing the separate sounds of our alphabet over and over again would so indoctrinate our children in phonics that all reading problems would disappear? Have you realized that ours is not a true scientific profession and that we should discard our scientific experimentation of the past 50 years and adopt the fundamental facts offered by the field of linguistics? Are you alert to the fact that all our efforts at grouping and the measurement of readiness and intelligence are unnecessary if we purchase a certain set of filmstrips and substitute these for all other instructional materials? Do you know that if we simply put all our reading materials on records and kept replaying these records, our children will automatically learn to read, beginning at a third grade level, in the first lesson? Or, have you realized that the best way to improve reading skills is for the reader to count his eye movements while he is reading and attempt to increase the span of these, to eliminate regressions and to speed up the eye movements. These are of the more astounding or, should I say, amazing, facts that I have learned by reading the new materials on reading instruction.

Here are a few more unique facts about reading instruction that I have learned in the past few years. Are you aware that a sizable proportion of our retarded readers are congenitally incapable of learning to read? I do hope you haven't discovered this fact yet, for it would prevent your continuing to teach such children to read because they are labeled dyslexic. Are you aware that there are at least ten or twelve current methods of teaching beginning reading which are completely contradictory in their understanding of the reading process? I hope you have not tried to familiarize yourselves with these as I have, for I can assure you that the only outcome would be your complete confusion. Do you realize that the current instructional materials you are using to teach the majority of children to read reasonably well are completely faulty in their structure, format, content, and organization? Or, haven't you learned that the reading materials should be composed of isolated words or nonsense words, barren of context or meaning, devoid of color and pictures, and based upon a letter-by-letter analysis? Have you realized that no child can legitimately use word form, structural analysis, visual analysis, the sense of the context, or any such clues in word recognition? These are a few of the delightful ideas culled from the flow in our materials explosion. If you try to keep up with this flow of new knowledge as I have done, I hope your reactions are a little less frustrated and cynical than mine.

TEXAS COUNCIL FOR THE SOCIAL STUDIES

The Social Studies Teacher as a Teacher of Reading

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WHEN WE DISCUSS the teaching of reading with teachers of social studies, we often encounter two negative points of view. Many teachers feel that by the time the student reaches high school he has been taught the basic skills of reading and there is nothing more that needs to be done. The other point of view is that whether or not the student has developed the basic skills of reading, the social studies teacher has no responsibility in this area. In either situation the student suffers. If he does not read well, he receives no help; and if he does have basic reading skills, he is not aided in developing these skills in a social studies framework. The professionally alert teacher has deplored such attitudes and has long considered the teaching of reading an on-going process and the responsibility of every teacher.

At this juncture one could indulge in a weighty discourse on "What is reading," but such an indulgence in semantics is probably not a wise use of time or space here. Wesley and Wronski define reading as the process of acquiring the meaning of the author, and this simple and straightforward statement should suffice as a basis for our discussion *(9)*. In no other area at the secondary level is acquiring the meaning of the author more difficult than in the social studies, where the reading material is generally abstract in nature and frequently ambiguous in manner of presentation.

The primary concern here is for the problems of reading which are unique to the social studies, and it is the purpose of this paper to develop a framework which will aid the social studies teacher in setting up a program of reading instruction.

A First Step

A careful study of the students with whom the program is to be used is the preliminary step in teaching reading in the social studies. Teachers have been exhorted for years to take students where they find them and to work from there. The advice is fine if the teacher knows where she found her students, but locating their place on the educational treadmill is not an easy task. Standardized reading tests furnish excellent basic background information insofar as they supply grade level placement and show specific strengths and weaknesses of the students as well. The social studies teacher would probably be most interested in the diagnostic type of reading tests such as the *Iowa Silent Reading Test (7)* and the *California Reading Test (2)* which give specific information in a number of areas.

The information gathered from these tests might cause the uninitiated teacher to have some qualms about her ability to deal with the reading problems in her class. Albert J. Harris in his book *How to Increase Reading Ability* reports that a few more than a third of seventh grade students read one or more years above grade placement, another third read at a level within a year of placement, and approximately a third lag by a year or more *(5)*. An eighth of the seventh graders are functionally illiterate insofar as they have not reached the fifth grade norm *(5)*.

When confronted with a reading span as great, or greater, than this, it is essential that the teacher make an effort to understand the diversity of scores. The records of each student should be studied carefully with certain questions in mind. What is the student's IQ? How has he performed in previous grades? What is the socio-economic background of the student? Does he have phsysiological problems which are barriers to reading? Does he have a reason for reading?

Once the teacher has thoroughly studied the reading tests and individual records of each student, she will begin to have a clearer picture of what she will be able to accomplish with her particular group. Standardized reading scores may not be available in all schools, and the starting place for these teachers would probably be an enthusiastic campaign for the purchase of such tests. In the meantime they may resort to homemade devices, such as carefully observed silent and oral reading, reading interest inventories, and teacher-made tests. These devices may also be used to supplement the standardized reading tests.

Providing for Individual Needs

At this point the teacher will become aware of a real need for providing for individual differences. Preston, Schneyer, and Thyng, in the NCSS bulletin *Guiding the Social Studies Reading of High School Students,* suggest several procedures that might be followed *(8)*. One procedure is to section students according to reading ability. Many schools have divided students into tracks or levels using reading scores as one of the basic criteria for grouping. A second procedure for teachers of heterogeneous classes is the use of parallel texts; and a third procedure, where parallel texts are not available, is to teach the reader how to make the most of a difficult textbook. The authors suggest two procedures for helping students to use a difficult textbook: [1] an intensive effort to acquaint the students with the organization of their textbook and with the study aids available with the textbook, and [2] the use of study teams which involve from three to five students reading orally and discussing their reading with teacher-made study guides. The analysis of the textbook should prove a profitable procedure at any track or level or with any type of book. The study teams, an idea first developed by Donald Durrell, seem particularly helpful in assisting the teacher in a continuous evaluation of the student's progress in mastering critical reading material *(3)*.

Selected Reading Skills for Social Studies Classes

The teacher has now reached the most crucial point in planning the reading program. On the basis of the planning and research done up to this point, she should begin to have some idea of the skills that need to be stressed in her classroom. The teacher who is inexperienced in developing reading skills should be cautioned that, although the teacher must be aware of the total reading process, she can do but one thing at a time. She must also be aware of the fact that what she does in the social studies class will be only one small part of the intricate pattern of the child's total learning. Ideally, the social studies teacher's efforts in this direction should be a part of a total school reading program, well planned and well coordinated by a trained supervisory staff. Since such programs are not common, it is important that the teacher of social studies not rationalize her failure to teach reading skills by the absence of such a program, but rather work even more diligently to develop reading skills suitable to her area in the hope that these skills will have transfer value in other academic areas.

Fraser and West in their book *Social Studies in the Secondary Schools* have designated twelve aspects of reading which they consider appropriate for emphasis in the social studies, and the teacher would do well to consult this list when considering skills to be developed in her classroom. The twelve skills listed are developing reading readiness, reading for main ideas, reading for important details, organizing what is read, skimming, adjusting reading method and rate to purpose of reading, developing vocabulary, improving speed and comprehension, using reading aids provided in most social studies material, locating sources of information, reading critically, and reading maps, charts, and timelines *(4)*. Some of these skills are of immediate concern to the social studies teacher.

The teacher's first emphasis should be on developing readiness. Fraser and Hunt indicate that a student has achieved readiness in social studies when he has a clear purpose for his reading, has interest in fulfilling that purpose, and has command of the vocabulary and skills needed for the particular reading to be done *(4)*. If the teacher accepts this definition, she will be continuously concerned with developing readiness. This writer feels that teachers do not spend enough time in planning and developing the initiatory phases of their assignments and consequently fail to develop readiness. Every motivational technique in the teacher's bag of tricks will be needed to create a feeling of purpose on the part of the student. Introductions to units and day-to-day assignments must be thoughtfully prepared and presented with a particular emphasis on problems the student may expect to encounter. Purpose and enthusiasm on the part of the teacher is contagious; and teachers who read, enjoy their reading, and talk with enthusiasm about what they have read will find a higher percentage of reading readiness in their classrooms. Significantly, research indicates that the social studies teacher who reads is an exception rather than the rule. Aden, Black, Clarke and Scott found in surveying 1,525 Texas social studies teachers that the average teacher reads, during one year, 2.67 books in the social sciences and 0.44 in professional education *(1)*.

As the teacher develops readiness, she will find it necessary to help the student in adjusting his reading rate and method to the purpose of reading. In the *Thirty-Third Yearbook* of the NCSS, Helen Huus indicates that there are four levels in rate of reading: skimming, cursory reading, study reading, and critical reading *(6)*. The student's problem is to select the rate that suits his particular purpose. The teacher will find it helpful to "step through" the procedure with the student as she makes reading assignments. The student may be directed to answer such preliminary questions as "How well acquainted am I with the material?" "What kind of book is it?" and "What is my purpose in reading the material?"

The student will frequently be at a loss as to what is involved at each reading level, and it will be necessary for the teacher to explore the rationale behind each level of reading and to provide assignments that will aid in the development of skills involved at each level. Fortunately many of these assignments can be tied directly to the content of the social studies unit being taught. Newspapers, which should be a standard commodity in the social studies classroom, may be used to develop a number of reading skills. Since newspapers are written to be skimmed, it should be easy to develop exercises with them that would give the student experience in quickly locating names, places, and events. It would also be possible to use newspapers as an aid in helping students locate main ideas and in organizing their reading. Teacher-made exercises of the multiple choice variety are also excellent aids in developing the student's ability to pick out main ideas; and class discussion, the essence of many social studies classrooms, should never be overlooked as a device for directing students toward main ideas as well as toward specific detail. If students are encouraged to read for specific detail, it is important that they be given frequent opportunities to use these "details" in a meaningful context.

The development of a social studies vocabulary is also a matter of immediate concern for the teacher. More trite and meaningless exercises have been perpetuated in the name of vocabulary building than in any other area. Many of the vocabulary exercises, word lists, and student-made dictionaries are basically good points of departure but become meaningless because the teacher and students make no effort to broaden and enrich their vocabularies with the new words. The teacher can, by communicating in an articulate fashion and pointedly making use of new words, provide the needed supplement to the vocabulary exercises.

Conclusion

Social studies has held the dubious distinction for some years of being the most unpopular academic area in the secondary school. The development of a program for teaching reading skills in the social studies classroom offers an opportunity to help overcome this reputation, since the student who reads effectively and with purpose will be less likely to develop a distaste for what he reads.

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AMERICAN EDUCATIONAL RESEARCH ASSOCIATION

Self Social Concepts in Relation to Reading and Arithmetic*

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THIS STUDY has applied a non-verbal method to the investigation of the self-social concepts of high achieving readers selected on the basis of high and low reading achievement in relation to arithmetic. It was assumed that a pupil's conception of himself in relation to others is a variable of psychological importance and one that will have an effect upon reading behavior. A second assumption was that differentially high and low reading achievement in relation to arithmetic (among able readers) represents performance that is near to or well below functional capacity but free from prolonged experiences of failure. It is proposed that characteristic patterns of self-other relationships will differentiate the high and low readers so defined and that these relatively stable personality styles will have relevance for instructional technique.

Studies of personality variables and reading achievement are extensive but inconclusive. Reviews of the literature by Gates (1941) and by Bower and Holmes (1959) concurred in the conclusion that "there is no single personality pattern characteristic of reading failure." Holmes (1961) found certain personality variables related to success in reading in the primary grades, but these differences disappeared at the upper elementary and the secondary levels. Stewart (1950) found good and poor readers matched for intelligence, sex, and socioeconomic level and different on the following personality traits: good readers were more dependent upon teacher, fearful of parents and in need of friends; poor readers were more aggressive and had relatively weak and easy-going fathers. In an exploratory study using an early form of the Childrens' Self Social Symbols Test (Henderson, Long & Ziller 1965), the present authors found a different pattern of contrasts between achieving and disabled readers who were matched for sex and intelligence. Here the good readers revealed a greater degree of individualism and of social independence. Differences in samples and in measures, particularly in the definition of reading retardation, have contributed to varied findings. The question also remains whether these differences are related to reading achievement or to the negative experiences of failure.

A different approach to this problem has been followed in a series of studies in which differential achievement in reading and arithmetic (verbal versus number proficiency) has been related to a variety of cognitive, social, and background variables. Here, too, findings show a considerable range, yet some consistencies emerge. Overprotection (Levy, 1943), strong mother influence (Plank

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& Plank, 1954), absence of father from home (Kackenberger, 1962 & Carlsmith, 1964) have been found to be associated with high verbal achievement. Here is strong support for the popular stereotype that associates verbal behavior with the feminine role.

Maccoby and Rau (1962) studied a carefully selected sample of fifth-grade pupils who differed in mathematics and verbal achievement. One set of findings showed the high verbal group different from its counterpart in measures of social dependency. Though self-ratings on dependency were low for the verbal group, peer ratings were high. Both boys and girls, however, said they would "often ask for help" from mother whether they needed it or not, and these mothers were themselves rated by examiners as "intrusive" and "demanding." Both boys and girls in the verbal group evidenced a "fairly high level of tension;" they were more easily distracted and more quick to say "sure" in ambiguous circumstances. Girls, however, appeared to find the verbal role less disruptive. They were low in masculine choice, more creative, and better able to delay gratification. These findings appear consistent with the idea that high verbal achievement is characteristically feminine.

In general, Maccoby and Rau found highly verbal children less stable and less mature than achievers in arithmetic. Children with high number ability were characterized as self-sufficient, popular, competent, able to reserve judgement and resist distraction. While there is considerable agreement about the feminine character of the verbal role, there is less agreement about its tendency toward instability. Roe (1965) for example, found verbal subjects socially oriented while math subjects were comparatively non-social. Monroe (1946) found no differences between verbal and math subjects in general adjustment but characterized the verbal group as "subjective" and the math group as "objective" on the basis of movement and form responses on the Rorschach.

Method

The present study is part of a larger investigation in which social and cognitive variables are related to reading achievement variously defined. The nonverbal method for the measurement of self social concepts was designed for a series of studies investigating the development of self social orientations from grades 1-12. It has been applied to a variety of problems and populations (Ziller, Megas & Decencio, 1963; Henderson, Long & Ziller, 1965; Ziller, Alexander & Long, 1964; Ziller & Long, 1965; Long, Henderson & Ziller, 1965; Long & Henderson, 1966; Long, Ziller, Ramana & Reddy, 1966).

In this method, a subject, working in a test booklet, selects and arranges symbols to represent himself in relation to salient other people. The assumption is made that individuals are able to communicate various aspects of their self social system symbolically and the certain symbolic patterns have common meaning. It is assumed, for example, that physical distance in the test may represent psychological distance in the person's life space. Hierarchies of power, or dimensions of importance or value are also assumed to be reflected in specific symbolic patterns, as are degrees of self-centrality, self-complexity, and self-differentiation from peers. The validity of these assumptions is supported by a variety of findings related to the construct validity of particular items in the test.

In the present form of the test, attention is focused upon seven components of the self—usually in relation to salient other people. These include esteem, identification, dependency, individuation, power, centrality, and complexity. These aspects of the self are assumed to be part of an integrated system. They represent dimensions upon which the self as a social object may be described. They have been found to be independent of IQ. Operational definitions of these components are briefly described as follows.

In the measures of *esteem* the subject places the self and five other persons in a row of circles. Positions to the left are assumed to represent greater importance for the self. This assumption is supported by a variety of findings in which the stimulus person was found to be significantly related to position in row. Children of both the United States and South India, for example, placed the "cruel," "unsuccessful," or "unhappy" person to the right, and the "happy" person or "good athlete" to the left (p = .001).

Identification is measured by two kinds of items. In the first of these, another person (father, mother, teacher, or friend) is placed to the extreme right or extreme left in a row of circles. The subject selects one of the other circles to represent the self. Physical distance is assumed to represent psychological distance, with greater identification associated with closer placement of the self to the other person. This assumption is supported by the finding that children who were separated from their natural fathers placed the self significantly further from father than did those living with father (p = .02). Likewise, children rated by their teacher as "shy" with teacher placed the self further from teacher than did those rated most "friendly" with teacher (p = .05).

In the second measure of identification —termed *group identification*—the subject arranges arrays of ten persons including himself into groups. The measure consists of the number of persons in the self group, and has been found to differentiate neuropsychiatric patients and normals, with the patients including fewer others in the self group.

In the measure of dependency, the subject draws a circle within or without a group of others. Greater social dependency is assumed to be represented by the placement of the self within the group of others. This assumption is supported by the finding that children placing the self within the group preferred to pursue more group activities than did those placing the self outside the group (p = .01).

In the measure of *individuation*, the subject chooses a circle to represent the self which is either the same or different from those representing peers. The choice of the "different" circle is assumed to express a greater degree of individuation. This assumption is supported by the finding that twins represented the self more often as the "same" than did non-twins of the same age, sex and class in school (p = .05). Children who had moved frequently represented the self more often as "different" than did those who had lived all their lives in a single community (p = .05).

In the *power* items the subject selects a circle to represent another person which is either above, even with, or below that representing the self. A higher position for the other person is assumed to represent less power for the self. This assumption is supported by the finding that children placed a friend lower than they placed teacher in a separate item (p = .01 in several samples).

In the *Centrality* items, the subject draws a circle within a large circle to represent the self and one to represent a friend. The placement of the self closer to the center of the circle is assumed to represent greater self-centrality. It was found that neuropsychiatric patients placed the self more often in the central position than did controls (p = .05), as did sociometric isolates compared with sociometric stars (p = .005), and children who had moved frequently compared to those who had lived in a single community (p = .01).

In the complexity items, arrays of three figures varying in complexity, which were derived from Glanzer and Clark (1963, 1965), are presented to the subject. He selects one of the figures to represent the self, with a higher score associated with the more complex figures. This item was used for the first time by the present authors in this study.

Subjects and Design. The Self-Social Symbols Tasks were administered to 81 fifth grade pupils in three high ability sections of the Quarryhill Elementary School, Yardley, Pennsylvania. These subjects were largely advantaged, white, upper-middle class children living in a young executive section of that community. Scores for intelligence (Lorge-Thorndike Intelligence Tests), reading, and arithmetic (Iowa Tests of Basic Skills) were obtained from the school records. Mean scores were as follows: I.Q. = 122.0; Reading grade level = 8.0; Arithmetic grade level = 6.4. It was thought that these children represented a highly successful academic group. To select high and low readers in relation to arithmetic, reading comprehension scores were regressed on those for arithmetic concepts. This difference score was found to correlate + .90 with reading, .00 with arithmetic and + .35 with intelligence. From the total sample of 81, the top and bottom third for boys (n = 11) and for girls (n = 16), were designated high and low readers.

Results

Reliability coefficients (split-half, corrected for length) were completed for each measure. These ranged from .65 to .94 with a median of .85 with the exception of power. The latter measures did not attain a satisfactory level and were henceforth dropped from future analyses.

Analyses of variance (sex by reading achievement) yielded significant differences between high and low readers on the following measures from the Self-Social Symbols Tasks: High readers showed:

1) greater individuation (p = .005)
2) greater complexity of self concept (p = .005)
3) greater social dependency (p = .01)
4) greater identification with friend (p = .005), with father (p = .05), and in the grouping task placed more others (p = .05), with the self and more often placed parents with the self (p = .05)

Two interaction effects emerged:

1) high reading boys and low reading girls were closer to teacher (p = .05)
2) high reading girls and low reading boys had higher self-esteem (p = about .05)

Because of the numerous significant effects and because reading and IQ were confounded in the criterion measure used to form the groups, all dependent measures were intercorrelated with those for IQ, reading, and arithmetic.

Significant positive relationships were found between reading and the following measures from the Self-Social Symbols Test: complexity, individuation, and dependency. Individuation and complexity were found positively related to each other, and dependency was found positively related both to esteem and the identification measures, mother, father, friend and number of others and parents placed with self.

Only one measure, complexity, showed a significant relationship to IQ. Here, partial correlations showed a significant relationship between reading and complexity with IQ partialed out and a non-significant relationship between IQ and complexity with reading partialed out.

Discussion

A study of the intercorrelations among the self-social variables adds meaning to differences between high and low readers. The close relationship between social dependency and identification with significant other people suggests that these may be similar responses. Placing oneself in the group of others (social dependency) and placing more persons with the self, and placing the self closer to significant other persons (identification) may be considered a single self-other pattern. This finding would seem to indicate that the high readers are indeed more socially oriented, as was suggested by Roe (1956). Such a pattern would be consistent with a theory of reading which holds that the process is in part a dialogue in which the reader experiences a continual social interaction with persons both real and imaginary. From this point of view social orientation should indeed faciliate achievement in reading.

Whether or not the social orientation of the high reader is associated with fear of rejection or with a positive liking for people remains unanswered by this study. A similar pattern of high social dependence on the part of disabled readers was interpreted by the present authors as a dependent withdrawal or submersion in the group. Maccoby and Rau (1962) also interpreted the dependency of their high readers as a negative personality trait. It is equally possible, however, that one may seek the group condition for active purposes of participation and even for leadership. The positive correlation between self esteem and dependency suggests the possibility of this second interpretation for subjects in this sample. The finding of earlier developmental studies that social dependency increases over the grades also suggests that this variable may reflect social maturity.

The second joinder revealed by the intercorrelations is that between individuation and complexity of the self concept. Here a significant relationship is found between a response which selects a symbol for self that is different from most of those representing others and a response which picks a more complex figure to represent the self. This finding appears reasonable because the more complex figures were also more unusual. Not only may the high reader of this sample be characterized as socially oriented, but also he may be seen as one who discriminates between himself and others. This does not appear to be the behavior of an individual seeking group anonymity; rather it suggests the active participant. The joint findings of sociability and individuation among achieving readers appear consistent with a theory of personality that asserts greater maturity of the self concept to individuating experiences. Also, this tendency to discriminate self from others appears harmonious with the demands of the reading task in which one must continually weigh one's values, thoughts, and anticipations against those of the author and the characters he directs.

The two interactions are of interest because they concur with the most consistent finding among studies that have investigated the differential achievement in reading and numbers. Both reflect the relatively feminine position for reading and masculine position for arithmetic. Thus it was found that for boys, high esteem was associated with low achievement in reading relative to arithmetic. For girls, high esteem was associated with high achievement in reading. While developmental studies have shown pupils moving away from teacher as they advance through the elementary grades, it is the high reading boys and the high math girls who are closest to the teacher in this sample.

Summary

What, then, are the self-other patterns of the high achiever in reading relative to arithmetic? The findings of this study suggest that the high reader in this sample is socially oriented and sees himself as both different and complex. For boys this is a relatively low esteem role and they relate more closely to the teacher. For girls the verbal role is more compatible. Further research is needed to determine the motives of social dependency.

The present authors view these findings as consistent with a theory of reading which emphasizes the demand for vicarious social interaction as well as for the application of the cognitive and perceptual skills. The high correlation between esteem and social dependency along with the parallel attribute of greater individuation and complexity suggests that the social dependency of the able reader has, at least in part, positive rather than negative origins. Yet it appears clear that the verbal role is characteristically feminine and as such is lacking in prestige for boys.

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ASSOCIATION OF CHILDHOOD EDUCATION INTERNATIONAL

Perspectives: Teaching Young Children to Read

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THERE ARE strong surges of thinking in regard to all aspects of education at the present time. We seem to be experiencing a veritable crescendo of new ideas about improving instruction in science, social studies, mathematics and reading. Fresh schools of thought are emerging, novel materials are being developed, opinions pro and con are being advanced with vigor, and educational controversy is running rampant.

Among present controversial issues perhaps no one of them is more widespread among parents and educators than that of teaching young children to read. There are some who are forcefully arguing for the early teaching of reading; others are opposing this practice with vehemence.

What troubles me is that the arguments seem to be *all* black or *all* white. There are many variables in this complex situation and numerous shadings of gray between the two extremes of thought. Yet most people talk, speak and write in terms of one or the other of two broad alternatives: Shall we teach young children to read or shall we not teach young children to read? We need to be more specific. I am convinced that this controversy would be mellowed, reduced, in many cases resolved, if we would break down into specifics the broad implications of this topic as a whole. What do we mean by the generic term *children?* What do we mean by the broadly applied adjective *young?* What do we mean by the prepositional phrase *to read;* and lastly, and perhaps most important, what do we mean by the word *teaching?* It is hoped that pointing out some of the shades of meaning in each of these terms will serve to clarify the concept of the overly-generalized subject, "teaching young children to read."

What Do We Mean by *Children?*

When we talk about teaching reading to young *children,* are we talking about the great mass of offspring representing the plural of *child?* Or are we talking about some particular group or some individuals, having certain characteristics of their own but still classifiable under the generic term of *children?*

Are we talking about children like John, the son of a professor who is a colleague of mine? Upon going to the home of this colleague I was introduced to Nancy who is in the second grade and to John who had just turned four. Mrs. Miller said, "Nancy is reading at fourth grade level, and she spends hours reading to John. He begs her to read to him. "Can you read, John?", I asked. The answer was forthright, "Not yet but I will be soon." And I am pretty sure that he will be reading soon. The children evidently have high intelligence, they live in a cultured home, they have had rich experiences, they have an ample library of children's books. The father, mother and sister are all avid readers. John lives in a stimulating reading environment.

John and Nancy represent the kind of children whom most investigators are talking about in their studies of early readers. Plessas and Oaks *(1)* summed up the characteristics of children in these studies and stated:

> . . . these early readers can be characterized largely as having superior intelligence, having fathers who have mainly clerical and professional positions, living in homes with many encouraging and stimulating activities relating to reading . . .

Bob and Janice are children in another home that I had occasion to visit recently. Janice is eight and Bob is three. Their mother finished high school; their father quit at tenth grade. Both parents work at non-professional and non-clerical jobs. Janice went to school on the day of my visit. Bob spent the day with a woman who does babysitting in her own home.

"Do you ever read to Bob?", I asked Janice. "Oh, no" replied Janice. "We don't have any books, and beside I hate reading." Finally I edged this question across to Mrs. Steele. "Do you read to your children when they are little?" "Goodness, no. I'm too tired and when I have a little time at home I have too many other things to do to bother reading to them. I hardly find time to take a few looks at television, myself." Imprudently, I pursued the matter further, "Do you think Bob might be more interested in reading in school if he had some children's books, and if you or Janice might squeeze out a little time to read to him?" The answer was disappointing. "When he goes to school the teacher will take care of his reading. That's her job."

May we ask, do Janice and Bob represent the kind of children we are talking about when we glibly discuss the topic of teaching young children to read?

Here is another example. It is a description which a first grade teacher gave me concerning her class:

> At least two-thirds of the children would be termed disadvantaged. There are perhaps a half-dozen in the class who are blessed with both a mother and a father in the home and who are reasonably well clothed, fed, and loved. Of my twenty-nine children, fifteen are Puerto Rican, five are Negro from poverty homes, and the remaining nine are low-middle-class white. They have a median I.Q. of 86. I suspect they would rate low on a maturity test. At the end of the school year last spring, my children in a similar class indicated a beginning kindergarten level of maturity on the Peabody Vocabulary Test. One child in the class is emotionally disturbed, three youngsters have severe speech problems, and all are meager in their language expression. They are creative, however, in such areas as music, art and dramatic play. We have the best finger-painters in Jackson County. On the other side of the ledger I must say that when it comes to reading they just don't catch on; and I am often confused by such expressions as "My Mudder, he . . . ;" "My toof jess fall down . . . ;" "I gots de stomick ache in my froat . . . ;" "Land where da Peelgrims fried . . . ;" and so on.

Now, when we are talking about teaching reading to young children, are we including in this broad concept the kind of children that this first grade teacher has in her class?

For years research has revealed again and again vast individual differences in children physically, intellectually, emotionally, linguistically, in rates of growth, and in degrees of motivation to learn. Research also has shown that reading success is related to these factors. Children are different from one another and reading ability differs as children differ.

A striking example of individual differences is apparent in a longitudinal study which has been under way for several years. Durkin *(2)*, the investigator, has followed groups of children who read before coming to kindergarten as they proceeded through the grades, and she has found that they have been consistently higher in reading achievement than the children in her control groups who did not read before first grade. The non-early reading groups were matched with the early reading groups in intelligence, in chronological age, and in the school which they attended. An important question yet to be answered is why didn't the children in this comparably bright control group learn to read early? Some differences between these children and the early readers did come out in interviews with parents. The early readers walked and talked at earlier ages; they tended to come from smaller families; they spent fewer hours before television sets; they were more often content with quiet activities (drawing, coloring, looking at books) while the nonearly readers had been more involved in active play, being fascinated with toys rather than coloring books, blackboards, pencil and paper.

The differences mentioned above were obtained through interviews and are significant. When additional research of this nature proceeds with its objective being to probe deeply into individual differences with a variety of appropriate tests, undoubtedly many differences will be found in regard to the fundamental growth areas mentioned earlier.

The need for adjustments to different kinds of children was evidently strongly sensed by Mason and Prater *(3)* in their review of 43 studies having to do with children and early reading.

In their summary the authors ask the question of "whether or not we should teach reading to preschool and kindergarten children." Then they draw some preliminary conclusions from the comparative studies included in the summary. Some of their conclusions are:

> When exposed to the same program younger children make less progress than older ones with similar levels of intelligence.
>
> That the best age for beginning reading is dependent upon several other variables such as the instructional materials, class size, the pacing of the program, and teachers' expectancies.
>
> That the control of attention is apt to be difficult for young children, and that attempts to force learning may lead to emotional reaction.
>
> Unless we improve in gearing our instruction to the student's ability to learn and to the amount of his previous learning, the answer to the question posed at the beginning of this paragraph will be *no*.

In regard to the last conclusion, particularly in so far as the kindergarten is concerned, I am not satisfied to leave this matter in the subjunctive mood. In my opinion we should be taking immediate and constructive steps "in gearing our instruction to the student's ability to learn and to the amount of his previous learning" and to many other individual differences. In doing this the answer may well become "yes" for certain children, provided that the "instruction" is carefully defined. Later on in this paper an attempt will be made to sketch broad outlines of possibilities of instruction for different types of children.

What Do We Mean by *Young?*

Webster defines *child* as "a young person at any age between infancy and maturity, but most commonly one between infancy and youth." According to this definition "young" covers a pretty wide spread of ages. Authorities in childhood education and child psychologists are generally agreed that the period of early childhood extends from birth through the eighth year of life.

When we speak of young children do we mean the two-year-olds whom one writer suggests as subjects for word-card flashing? Do we mean the three- and four-year-olds of nursery school age? Do we mean the five-year-old in kindergarten? Do we mean the six-year-old in first grade or the eight-year-old in third? Technically "young" used in modifying the word "children" covers a lot of territory, and age makes a tremendous difference in teaching reading. When we are talking about teaching reading to "young" children we had better specify whether we are referring to two-year-olds, five-year-olds, six-year-olds or eight-year-olds.

And even if we do specify chronological age, we must go further and indicate the kind of children at this chronological age whom we have in mind; and, if possible, give some information in regard to their stage of development in many growth areas other than chronological age.

What Do We Mean by "to Read"?

Many people seem to labor under the impression that "to read" means to recognize a few words on the television screen, on flash cards, or in a book. This is an exceedingly limited and distorted viewpoint.

What does "to read" really mean? What are the chief constituents of the reading process?

First, and of basic importance, is the development of interest in reading. Thousands and thousands of individuals today possess the skill of reading but never read a book or anything else, not even a newspaper. Studies repeatedly show meager reading habits in many students in school and college, in adults in life, and even in the aged whom we might expect to welcome leisure time in which to read. Without a thirst for reading, the skills perform only a minor part of the function which they should serve.

Little John, the professor's son who was surrounded with books and who begged his sister to read to him, was probably establishing an interest that will remain with him throughout life. Bob, who had no children's books in his home, whose mother was too busy to read to him, and whose sister hated reading, may wind up completely lacking in reading interest as are many adults at the present time.

May I ask is the development of thirst for reading uppermost in the minds of many parents who are now teaching their preschool children reading skills? Judging from the large numbers of students and adults who can "read" but do not, is it possible that we, as teachers, haven't been doing as good a job in kindergarten and primary grades as we might have done in establishing this primary constituent in the learning-to-read process? It would be of great signficance if all of us would work toward greater improvement in this area.

Another fundamental needed in acquiring the process of reading is word recognition, the ability to decode words. This skill, however, is only a medium to use in realizing the other components of the reading process. Nevertheless, it appears that this one skill is considered by many people to be the end point in teaching young children to read. It is regrettable, indeed, that so many advocates of early reading mean word recognition only when they speak of reading. Overemphasis on this extreme concept of the reading process limits the reading growth possibilities of the child in other ways.

A third constituent of the reading process is that of understanding meanings given through word symbols on printed pages. This is the real purpose for which reading is carried on. Yet, one rarely hears any mention of comprehension by those advocating the teaching of reading to young children. We might inquire seriously, "Why is it that this very significant element in efficient reading is so often disregarded in accounts of teaching reading to young children?" This isn't quite understandable.

We have some evidence that early readers cannot grasp meanings commensurate with their ability to pronounce words. For example: McCracken *(4)* recently reported a study in which eight children who read before first grade were observed and tested over a two-year period. Their average I.Q. was 132. They quickly mastered word-pronouncing and oral reading skills and made test scores above average. However, the investigator reported, "The ability to comprehend materials which they could read fluently orally was a problem for three of the children in March of first grade and for seven of these children at the end of second grade."

If gripping national and international problems are to be faced and solved, the adults of tomorrow must be keen interpretors and critical evaluators. May we ask, then, is it fair to the young children of today to implant in them the impression that all there is to reading is word-calling as is often done? Pronouncing words is not enough Meanings are worthy of consideration, also.

This brings us to a discussion of concepts. Comprehension is based on concepts. Through the use of concepts the child in early stages brings meanings to symbols rather than getting meanings from symbols. Concepts of young children need development, enrichment and clarification.

A study that was carried out several years ago was very significant. It was conducted by Cantor *(5)* and it had to do with concept development in the kindergarten. The investigator analyzed the preprimers and primer which kindergarten children would use in the first grade, for concepts. Then she planned a series of excursions designed to acquaint kindergarten children with these concepts. Next, she organized matched groups of kindergarten children. Some groups were taken on the excursions; others were not. The groups having the excursions made higher scores on their readiness tests, and later in first grade on their reading tests than did the others. This is convincing evidence that concept development contributes to beginning reading.

One more constituent of the reading process will be mentioned—that of implications for developing rate in reading. In this age of speed, rapid reading is a desirable skill to develop and while young children definitely should not be subjected to speed pressure, the foundations should be laid from the beginning. Does pronouncing individual words or an overemphasis upon scrutinizing words for phonetic elements serve to develop fluency? Research says that it doesn't. Experiences in reading words in phrases and in sentence is necessary in laying the foundation for fluency.

In summarizing different viewpoints in regard to the meaning of the reading process, two questions will be asked:

1. When we speak of "to read" in discussing the topic of "teaching young children to read" do we mean that reading is simply a matter of saying words in response to a visual presentation of printed symbols?

2. When we speak of "to read" do we mean the broad process of developing deep and abiding interest, skill in identifying words, ability to grasp meanings, and habits of reading phrases and sentences?

My readers may decide for themselves to which of these meanings they subscribe, and which one they support in practice.

What Do We Mean by the Word "Teaching"?

"Teaching" is perhaps the most significant word in the whole controversial topic of "teaching young children to read," and the one concerning which there are the largest number of shadings in meaning.

When we think of *teaching* young children to read, do we mean:

1. Flashing word cards before the child, saying each one, and asking him to repeat it?

2. Drilling the child on the sounds of phonetic elements, presenting them on cards or paper, having him repeat them, and then telling him how to apply them when sounding words?

3. Having children work through a phonics workbook or kit designed for kindergarten?

4. Having children use a readiness workbook that accompanies a basal reading program?

5. Organizing a kindergarten class into three groups and following a teachers' manual in teaching the children to read from the successive preprimers and primers of a basal reading series?

6. Building a permissive reading environment, whetting interest by much reading to children from books, providing abundant contacts with reading symbols in functional and meaningful situations, recognizing and encouraging those who already read or begin to read, being willing to wait for reading maturation to come in those who don't?

All six of the above practices are in use in different parts of this country at present. So "Teaching" means different things to different people. When one person is talking about teaching to young children he may have in mind any one of the six practices I have mentioned. The person to whom he is talking may have an entirely different one in mind. How futile it is to talk in general terms about the "teaching" of reading to young children.

The great majority of specialists in early childhood, kindergarten teachers, and reading authorities are deeply concerned about *pressures* to teach formal reading to young children *indiscriminatively*. These people recognize the present trend to raise skills to higher levels of achievement in all fields. They are earnestly seeking ways to meet this demand of society at the kindergarten level without sacrificing their philosophy arising from great funds of knowledge in regard to the characteristics and needs of young children and in regard to the complexity of the reading process. Perhaps clearer understandings of the shades of meaning in the concepts of "Teaching Young Children to Read" will help in reconciling these viewpoints and in working out prudent applications of the concept as a whole. If this paper has contributed anything at all to this end, its purpose will have been accomplished.

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